Anthelmentics D. Kuhn 293.

+ (LE)

[1644] £62 5D

N39

& ambitious; they are proud & venerish, inclining to many diseases, but commonly live to a good old age. Of a darkish color & full Visage - bodyed solid - quick & hard pulse &c.

If a woman her menses begin at y^e^ full & last 5 or 6 days. Color full red. This joined with a Sanguine lasts 6 or 7 days - with a phlegmatic 5 days - with a Melancholic 4 or 5 days.

3. Melancholy. This temperament consists in a redundancy of y^e^ earthy principal, w^ch^ makes the blood thick & heavy, its nature cold & dry. The person is covetous & a great miser never getting enough of ye world - Whimsical, great workers, & more liable to forgive than forget an injury, inclining to Venery & keep their own secrets; they are very still, talk but little & think a great deal; their color a dark yellow, full in the face but lean in other parts, veins big, pulse heavy & slow; they are mostly inclining to y^e^ Colic, Gravel, stone, sciatica &c. if a woman to the Leach ast & affectus Uterinus, her Catamenia begins with ye. Novi Lunium or Neomenia & lasts 3 or 4 days, - Color a light black & thick. Joined with a phlegmatic it lasts 2 or 3 days.

4 Phlegmatic. This temperament proceeds from a redundancy of watery particles in y^e^ blood; Just people are sleepy, lazy, clumsy, hard to be instructed, eat & drink a great deal & keeping y^e^ Good Rooches in great Veneration - are little concerned about y^e^ things of y^e^ world: their conversation disagreable & not at all Complaisant Color white flesh soft & watery substance pale Veins & arteries weak & slow pulse, & big bellyed & more inclining to sickness than any other temperament is never well, particularly liable to Edematous & Dropsical swellings Diarrhoes &

A Medicus sive Physician should be modest sober & humane, & should be well acquainted with the nature & changes of y^e human body, Pharmacy &c.

It is observed that the first seven years disorders in children are on the head, from that to 20 in the breast, from that to 30 or 40 in the abdomen — stand old age in the extremities; the reason of w^ch is because the wonderful Anthropogenesis of the machinum of the human fabric is thus formed (viz) 1 The Head 2. The Thorax 3. The Abdomen, & lastly the extremities.

Each age has its affection or inclination, e.g. Children sleepy, vain, Wild & love sweet things; Young people Ambitious, Choleric, talkative, impatient & careless; Manhood careful, ambitious, sound Judgement & memory, Old age mistrustful, covetous, easily deceived, solitary & Still.

The effects of these changes are different diseases & alterations of y^e mind.

In the human constitution there is 1^st The Vis rationis & Judicii, this is seated in the Brain & is that whereby we Judge art & conceive things. 2^d Vis Animalis this is the Nervous fluid or Aether, & is y^e cause of sense motion & y^e Animal functions. 3^d Vis Vitalis is in y^e Mass sanguinea & is y^e cause of life warmth & growth.

Temperamenta. The Microcosmical machine is composed of soul & body.

The Soul is a Metaphysical substance or being the principal of life, immortal, & capable of enjoying & suffering after its dissolution from the body.

The body is a compound of Matter & form, composed of the four elements, Fire, air, Earth & Water artfully combined & in wch is contained the Seeums Nutritia, & yt blood wch contains heterogeneous particles of Sulpher oil Earth & water; from the various combination of yt heterogeneous particles in yt body proceed yt several Temperaments complexions or Constitutions, wch physicians have reduced to 4 primary ones (viz).

1. Sanguine. 2. Cholinic. 3. Malancholy. 4. Phlygmatic.

In this Microcosmical habitation yt soul has its dwelling residing in yt animal & Vital spirits, & continually moving therewith this influence of yt soul & animal Oeconomy forms what's called animal nature.

1. Sanguine. This Temperament proceeds from a redundancy of oily & sulphurous particles in yt blood wch makes it look florid, yt body lively & warm, full of transpiration; the person is airy, inclining to pride, Venery, ready wit but apt to forget: Friendly polite, full hearted, Oratical, quick in action &c. Body full & Vigorous, redish complexion, & fel warm; Pulse goes hard. If a woman her Menses are discharged at a full Moon. If a good red color Ordinarily hold 4 or 5 days; if joined with a Phlygmatic they last 6 days. Nature hot & moist.

2. Cholerick. This temperament proceeds from abundance of sulphurous & fiery parts in yt blood wch makes it acrid, & its nature hot & dry — The person is fiery, very passionate, but is soon over & then cannot bear malice; quick in action & often sorry for things past, because their senses are so quick that it gives them no time to consider yt consequences of a thing before they do it. Flatterers & cowards not to be too much depended upon; the best of them are timerous passionate trusty faithful & ambitious. X

Lecture 1:st 14:th Feb:y 1766

Gentlemen. Of The Meteria Medica.

Meteria Medica comprehends all substances used either in Diet or Medicine; for the preservation of Health, or curing diseases.

Medicine has been divided by some into three parts, viz:t Chirurgie, Dietetic, & Pharmaceutic the materia medica being included in the last part, but as it is as necessary to know what substances are fit for diet as well as for Medicine & many medicines may be made of Dietetics, I shall, include both the latter under the materia Medica, according to the above Division thereof. Each substance will be considered in 4 lights * viz: 1:st A knowledge of the subject, or a kind of natural history thereof, 2:d its use in Diet or medecine, 3:d the operation of the medicine in the human body, & 4:th The Pharmaceutic preparation thereof.

1:st A knowledge of The subjects; these are of two

12

kinds 1st of natural substances; A knowledge of these depends upon our knowledge of natural history in General. 2d of Artificial substances, these are such as come thuse prepared fore medical use as soap, Vitriol, Metals, &c:

The substances used ind medecine being many a systematic method of ordering & Clasing them is very necesary in order to become properly acquainted with the materia Medica. (a knowledge of the substances is best acquired by frequent seeing & handling them.)

many methods have been invented for the arranging of bodies; some from thier apparent operations have ranked them under the heads of Emmolients, Maturants, Laxatives &c: but this method unless attended to with the particular Indications of Diseases proves falacious, others rank them from thier being supposed specifics in particular diseases, or applied to particular parts, thus calling them Antiepileptics, Cephalics Vulneraries &c:

Dr Lewis in his Materia Medica has treated it Alphibeticaly, this is of advantage in consulting it

Dictionary wise, Linnaeus has ranked all substances in a clasic manner upon a supposition that all those bodies of the same clafs have nearly the same virtues; but this will not hold true, but in a very few instances. Geoffroy & Neuman have endeav=
=aured to find out the virtues of medicines by various chemical treatments thereof.- Cartheuser has arr=
=anged the objects according to thier virtues or operat=
=ions in particular Indications this seems to be the best method & that which I shall follow, being also best fitted to the memory. We are subject to be decieved in the operations of medecines many ways as, trusting to the ancients recommending them and other authors, we are also liable to be decieved by the patients themselves giving us a false account of thier operation or hiding the symptoms; by asscrib=
=ing the effect to a wrong medicine; & by the disease itself: for giving a medicine at the Crisis of a Disease the same having no effect yet the patient may grow better, and they ascribe that to the medicine which nature alone did.

The Operations of medicines proceed not from

× when from the diagnostics of a disease we have learnt its particular state increase &: the part affected & the matter that offends in the said part & have formed a prognostic what is to be hoped for & what to be feared: & then too from all these concluded what things are to be done: these are called the things indicated & the knowledge thus produced in the Physicians mind is termed the Indication.

Vanswieten vol 1

matter & motion only, but from the particular disposition of the Vessels & fluids of the body at that particular time, to bring about such a particular effect or change, hence the necessity of being well acquainted with the vital motions & animal Oeconomy.

## Lect 2d. Of Indications

Indication is a rule arising from the knowledge of the disease, & the remedies applied is such case is called the Indicata, & the symptoms inducing the same is called the Indicans. +

Medecine act on the simple or moving fibres or on the fluids & may be classed as follow viz:

Medu
acting

Medicines acting upon

- the fibres
  - Simple or moving
    - Nutrientia — 1
    - Adstringentia — 2
    - Emollientia — 3
    - Stimulentia — 4
    - Sedativa — 5
    - Antispasmodica 6
- Fluids or as alterants
  - Attenuantia — 7
  - Inspissantia — 8
  - Demulcentia 9
  - Antacida 10
  - Antalkalina 11
  - Antiseptica 12
- Evacuants
  - Errhina — 13
  - Sialagoga — 14
  - Expectorantia 15
  - Emetica — 16
  - Cathartica — 17
  - Diuretica — 18
  - Diaphoretica 19
  - Menagoga 20

10 * Medicines act either upon the solids or
fluids or on both at the same time
1st On the Solids as Stimulants, Astring-
ents, Laxants, Lenients, Emollients,
Anodynes &c: 2d On the fluids either
by lessening their quantity, or by
changing their quality. By lessening
their quantity as all Evacuants viz:
Errhines, Sialagogues, Emetics Cath=
tics, Menagogues, Diuretics, Diaphore=
tics &c: altering the fluids in their
quality as Diluents, Resolvents, Incras=
sants, Antacids, Antiseptics. 3 operating
upon the solids & fluids at the same time
as many of the foregoing classes esp=
=cially Evacuants likewise attractents,
Repellents, Calefacients, Refrigerants
Discutients, Maturants, Detergents
&c: to which may be added those called
Specifics; but local terms as Cepha=
lics, Cardiacs, Pectorals, Hepatics
&c: ought to be discarded.
alstoni Operned:

beside the preceding some have reckoned a
third class, viz: act upon both the solids & fluids at the same time.*

Medicines acting upon the solids are, according
to the preceding table, of two kinds, 1: upon the mem:
:ple fibres 2: upon the moving fibres. The mem:
:ple fibres according to Boerhaave, are subject to
Laxity, Rigidity, & debility.

The first grand division of substances is
into Diet and Medecine — Nutrientia are
not properly medicines serving for food mostly:
Astringents are used in Laxity of the fibres; &
in rigidity of them such medicines must be used
as soften & diminish the cohesion as Emollients.

The moving fibres are subject to three dis:
:eases viz: 1: debility, 2: motion too much encreased,
3: an irregularity of motion, the first requires
stimulants, the 2: Sedatives & the third
Antispasmodics.

the fluids are acted upon two ways by Al:
:terants & Evacuants

The first when the ~~Body~~ Blood is either too thick, too 13
thin or Cacochymiac: in a thickness or Lentor
of the blood Attenuants are req. In a too
thinness of the blood Inspissantia are requis.:
& in a cacochymy, if acrid Demulcentia, if acid
Antacida, if alkaline, Antialkalina & if putrid
(the last degree of alkalescency) Anticeptics are
required.

Evacuants are such medicines as discharge
particular humors from the body & thence hav=
=e thier names as Errhina 2. Sialagoga 3. Expec=
=torantia 4. Emetica 5. Cathartica 6. Diuretica
7 Diaphoretica, these are all performed by
means of an increased secretion, but Mena=
=goga operate by increasing or attenuating
the blood or the motion thereof.

Synonimous Terms.

To Nutrientia are Restoratives & analeptics
To adstringentia are Exsiccantia, Durantia, Roborans
& Tonics
To Emolients are Laxantia & Humectantia &c:

To Stimulantia are Caliphensia

Attrahens has 3 subdivisions 1st such as preserve heat 2: such as increase heat in any part, these are called Rubifacientia 3d Raises blisters & ar called Vesicatoria & sometimes Epispastica. To Sedatives are Synonimous Anodynes, Hypnotics Somniferies Saporifics, & Paregorics.

To Antispasmodics are synonimous Carminatives.

Of those that act upon the fluids

To attenuants are Diluents Incidentia & Resolventia

To Inspiscantia is Incrassantia &c

To Demulcentia are Antacrida Lenientia & Temperantia

To Antacida are absorbentia & Immutantia

To Derivina are Sternutatory & Apophlegmantia

To Menagoga is Aristolochica.

Of Improper terms

Medicines that remove obstructions have been called Aperients & Deobstruents but these terms are too vague. In surgery in the treatment of Tumors the

the 1st Intention is to disperse them, hence Discutients
Resolvents & Repellents 2d Intention is to bring them
to a suppuration, hence suppurants Maturants &c.
3d Intention is to digest the pus, hence Digestives
Detergents & Mundificants 4th Intention is to
renew the lost substance this is chiefly performed
by nature however they have Sarcatics and 5th
Intention is to consolidate the wound, hence
Consolidants Aglutinants & Vulneraries, but
all these terms are either too general or Impr
:roper & uncertain. The Last Intention is to
Cicatrize the wound hence Epulotica and
Cicatrizantia.

of supposed specifics: these are of two
kinds. 1st Local, 2d for particular Diseases.
1st of Local specifics these are many, as Cephalics
Ophthalmics, Pneumonics, Pectorals, Stomacics,
Hepatics, Splenitics, Nephritics, Uterines &c.
2d For particular diseases we have Antiepileptics
Antimaniacs, Anthypochondriacs, Anticachectics,

Anisebrilia, Galactöfora, Anthgalactöfora. &c.
Thus I have given you an account of most of the terms used, many of w.ch depending upon a wrong Theory convey false Idea's & therefore should be discarded!

Lect. 3.d Febr.y 19.th

## Class 1st Nutrientia

Gen.m 1.m The Substances of this class are used by men for their daily food & therefore includes all those substances that may be converted to animal nature & made fit to repair the constant waste thereof. Aliments differ in two respects: 1.st in their being already Animalised &c. as the flesh of animals, & secondly requiring a considerable change before they are assimulated to the animal body as all vegitable substances; & as the food of all animals is derived from vegitables, or from other animals w.ch derived their therefrom, we shall begin with vegitable Aliments

Vegetables particularly proper for the aliment 24
of man are all mild sweet temperate & agreeable
ones, & all acrid pitted & disagreable vegetables
are unfit for food: it is true we use some acri-
:id substances such as mustard &c: but they are
not at all nutrient & serve only for Condiment
or sauce. It is hard to know what substances
are particularly fit for the food of all animals;
different animals requiring different kinds
of aliment; this seems to arise chiefly from
a difference in the digestive faculties, & hence
we may account for men's desiring different kin-
:ds of food from the same cause different climates
likewise make a considerable difference also.
It appears however from experience that the
saccharine & oily parts of a plant blended tog-
:ether are most fit for nourishment.

The changes our food undergoes in the body
are three viz: Assimulation, Solution & mixture.
Assimulation is brought about by Digestion

in the stomach; if the stomach is weak & subject to a too great quantity of Acidities wch makes a too active fermentation therein, discharging the mephritic air in too great quantities or what is by some called the Gas Sylvestra which is the cause of many diseases, as Epilepsies, Apoplexies, &c.

The morbid state of the aliments in the body is oweing to the Aliments themselves or to a depraved disposition of the Stomach. Accesent fruits should be avoided by those that have weak stomachs, as they naturally incline to a too active fermentation

Solution depends upon the consistance of the body to be dissolved, the pulpy part of vegetables only being soluble in the primæ viæ & in proportion to the solubility of substances will the body be nourished by them.

Miature readily takes place in the body in a
sound state: too great quantities of oily bodies howe:
:ver do hurt for tho oil out of the body is mi:
:d & stops fermentation, yet when in the body
it soon grows acrid & produces the Cardialgia
& Eructations.

An Idiosyncrasy is evinced, from the
stomach's immediately ejecting honey, Eggs,
shellfish &c: as soon as eaten by some persons,
it is also evident from this that the stoma:
:ch is very sensible by simpathy with other
parts, & from this sensibility we may accou:
:nt for the nausea's & even vomiting from
the smell or Taste of Disagreeable Substances,
therefore in chusing food we should have reg:
:ard to the Idiosyncrasy & sensibility of the
Stomach.

It is observed that a small fever mostly
comes on about 30 or 4 hours after eating, & of
any one that will takes the pains will find

that in that space after dinner the pulse Cæteris paribus is always increasd, this is caused by the fermentation of the aliments & in a small degree is salutary.

The nutrient class is primarily divided in: :to animal & vegitable substances.

## of Vegetable Substances

The first are Fructus acido dulcis; These are distinguished by Linneeus as follows. They are either fresh or dry. (a) Drupaces or stony fruits, these are Cherries, apricots, Peaches, Prunes &c the virtues of these & all other fruits depend upon 4 principles viz: Acerbity Acidity, Sweetness, & Stiffness of Texture. Acerb fruits are astringent cooling & stop the peristaltic motion of the Intestines & thereby cause an Accumulation & retention of hardned faeces. Acid fruits are refrigira: :ting weaken the stomach & are apt to produce

a too active fermentation / sweetness is the
only nutorent quality in vegetables; this swee
:tness changing into a kind of acid w.c mixing wi:
:th the bile & pancreatic Juice forms a ferment
quid w.c stimulates the Intestines to a discharge
of their contents) Different texture of bodies:
those that are lose in their texture are most nutrent.

Stone fruits are of a loose texture easily
soluble in the Stomach & we are apt to eat too
much thereof: they are also apt to ferment in
the Stomach & generate an acid, w.c stimulating
the Intestines perhaps Doroduce Diarrhea's, Cholera
Morbus &c: some have reckoned swallowing the
stones might prevent these ill consequences, but
it dont appear, & its more likely they may
cause some bad effects. (b) Pomacel
are apples Pears &c: these are more dilute
than the preceeding & also subject to acidity:
but mostly of a harder texture & therefore
continue longer in the Stomach: Pears being

specifically heavier than water settle to the bottom of the stomach & soon pass off & being sweeter than apples are more nutritive & less subject to an active fermentation apples con=: tain a great deal of air, & therefore apt to pro: duce flatulencies.

(c) Hesperides are Lemons, Oranges &c: these are subject to fermentation & good in fevers.

D) Senticosa* are Strawberries, Raspberries, Grapes, Currents, Gooseberries &c: with these at least some of them, we often use some condiment as Pepper Butter Salt &c: & wine as being already pure & fermented is often used to prevent the bad effects of these & other Substances.

Some have made it a question whether its bet: ter to eat fruit before of after a meal, but in strong stomachs it makes but little difference whether they are taken before or after.

Lect 4th

Dry Fruits, are grapes, Dates, figs &c: these

are less liable to an active fermentation than
fresh fruits as the acid is partly dissipated.
Of Dried grapes there are two kinds Raisens &
Currants. The Latter contains the most acids
& the most Laxative, prehaps the sugar they
contain makes them so. They are accounted good
Dates are of different kinds acerb & but little
used at present giving way to Figs which are
recoined much better, being Demulcent & Ne:
:phritic & used in Pectoral Apozems.

The 2d are Fructus Cucurbitata, these are
cucumbers, Melons, & Pompions, they have
mostly an insipid Juice, but subject to acesen:
:ey & thence may produce Diarrheas &: Oil &
Pepper are used with Cucumbers to prevent this
bad effect. Mellons are sweeter & more mell:
:ow than Cucumbers & Containing more sug:
:ar are easier digested, they are reconed diure:
:tic. Pompions are somewhat insipid & require
boiling.

3.rd Herba Oleracea, as Orach, Beets
Spinach, Lettuce, Asparagus &c: These afford
but little nourishment & are reckoned Laxative
in a small degree, Cabbage & garden Cresses
are much used in food by boiling they loose the
:er Acrimony, Colewarts, Colly flowers, Endives,
Lettace & Cellery are mostly Acrid, requiring
blanching before they are fit for food, Aspara-
=gus is used when very young for when it grows
old it is very acrid.

4 Fungi the part above ground is used,
of these there are reckoned three distinctions viz:
Truffels morels & Mushrooms. Truffels are
sometimes eaten & are prehaps the most Aphro-
:odisiac of any vegetable what ever: of Morels
there are two species viz: Esculentus & Pallis.
Mushrooms are mostly esculent when young
& are very nutritive to strong Stomachs, in
warm Climates they are much eaten.

5 Esculent Roots these mostly belong to the siliquosa class of Tournefort & we may ob: serve that all vegetable substances except the Fungi are acesant & undergo the acetous before the putrifactive fermentation in the Stomach. Radishes loose thier acrimony by boiling Cress & Beard, Lamb Lettice, Carrots, Parsley, Skirit, Parsnips &c: contain mostly a saccharine mat: ter & are therefore very nutritious.

Oleraces Roots as Leeks, Onions, Garlick &c: have thier acrimony dessipated & become nutr: ient by boiling in a raw state they are sti: mulating & when boild they become Demulcent, besides these there are Shellots &c. Potatoes are between the Oleracious & Farinacious Roots, are used in diet & they yield a vinous Liquor.

Salop is prepared from a root of a species of Orchis by pearing the root then soaking it some time in cold water & hung up to be dried in the air. The roots thus prepared may be powdered w.ch will dissolve in

* The farinaceous seeds are less nutritious than the Dietetic articles taken from the animal kingdom. In all cases they are a necessary addition to animal food: & are perhaps the best correctors of the putrid disposition which animal substances of themselves would produce, for the farinaceous being mixed therewith the mixture tends not to a putrid but to an acid state

Lewis's materia medica
p. 277

boiling water to a jelly, its Dimulcent good
in Dusenteries &c:

Sago called by some Padica is the pith of
a tree called landan growing in the moluccas.
some say it is made the same way the Italians
make thier Virmicelli & Tarantta its
Demulcent & is said will keep 20 years.

6 Farinacious Seeds * these are of three
kinds Cerialia Leguminosa & nuces Oleose.

Cerialia are the most used as Oats.
Barley, Rye, Wheat, Indian Corn &c:
these are acescent saccharine & very fit
for nourishment, they loose thier acescency
by fermentation & are Demulcent. Barley
is the sweatest grain & subject to fermenta-
tion, Millet is very much like it, Rye
is a sweat grain & is eat much by the poorer
sort of people & is apt to purge those that are
not used to it.

Oats is a very good compact sweet grain of a prox:thy hard texture & not so easily digested. Wheat is the perfectest grain of any of the former cantains avery fine farina & prehaps makes the best bread of any grain, Rice affords a fine farina some say it hurts the eyes but this seems to be a false opinion. Mayz or Indian Corn, is an american substance of a firm texture & requir:es to be made into a fine powder. Fagopyrum or buckwheat is used with iss made into cakes but in scotland they convert it into other uses.

Bread may be prepared of any of the farinaceous seeds It is of 2 kinds, leavened or unleavened. Leavend bread is made either by leaven, commonly so called or by yeast, the Latter being the best.

It should be so much leavened is to prevent the vinous fermentation & by its inclining to acidity be gently purgative, the farine

* An Infusion or Decoction of well toasted bread
is a very agreable diluent of the restringent
kind. In the Cholera morbus or bilious vomitings
& purgings it is often retained by the stomach
when other Liquors & medecines are rejected:
and in several Instances by being drank plen:
tifully has effected a cure.

Lewis's Materia medica p: 279

being formed into masses by means of water &
beated untill it is dry.

Unleavened bread is tough heavy & less soluble
in the stomach the leavened bread, it retains its
moister greatly & therefore is made into flat thin
cakes that the water may be sooner dissipated, to
this clas belong also puddings, hasty puddings,
Gruel, Pancakes Paste &c: most of these have
eggs milk &c: in thier composition w^ch make them
very palatable & nutritious.

The Laplanders not having grain make
bread of shellfish & other dry substances.

Bread is a very necessary part of our aliment.
* nothing being more fit to mix the oily & watery
parts of our aliments than bread, being cleared
of visidity by fermentation it readyest mixes
with other substances, prevents the fatty or oily p^rt
:arts from concreting or growing rancid & great
:ly facilitates the mixture of all the substances
in the stomach, & prevents a to active ferm^n
:entation.

7 Farinaceous Legumina, are obtained from those plants which be a papilionaceous flower followed by a Pod these are also endow: :ed with a Saccharine substance & so nutritious, they are very profitable as they can be raised in great plenty & ameheing the ground fertile; whereas the Culmiferæ exhaust it, the Legumi: :na are of a firm texture & therefore require a strong stomachs. they are used while young & green or old & Dry.

Kidney Beans are of a firm texture nutritious & when deprived of thier husk less flatulent than most of the other Laguminia.

Peas on account of thier flatulency are bad for weak stomachs,

8 Succis Oleosa these are of the farinaceous kind having a great quantity of oily matter in thier composition & by maceration &c: thier oil is less blanded & may be easily seperated from them than

the preceeding, they are less flatulent than the
legumina or farinacious seeds. 1st Hazlenuts
may be eaten, in dry climates they have the most
oil. 2. Chesnuts were eaten in great plenty by
the antients they called them acrons & in Com.
: bardy they are now eaten as food, they are nutri
: tious affording a copious nourishment something
like the farinaceous but flatulent 3d Walnuts
Pistachis & several others are reckoned hurtful
by infracting the Lungs causing asthma &c:
4th Almonds are either bitter or sweet, oil equally
obtained from either the bitter is unpleasant.
5th cacoa is well stored with oil, not used until
duly prepared & when so no oil appears in the
solution & it is called Chocolate, this is good for
weak stomachs being easily digested & very
nutritious.

9 Olea these are used as sauces, they are
nutrient & afford oily parts for the cellular mem:
: brane & so constitute a part of the nutritious
fluid, Oil & Butter are nearest the aliments of
the animal kingdom

X Simple fluidity; universal Innocence or the absence of every quality that can offend the tenderest organ; miscibility with all the animal juices in a state of perfect health, except fat, unfitness to dilute or mingle with them when greatly thickned, as in some diseases; a disposition to pass off by the cutaneous pores more speedily & more plentifully than by the kidneys in consequence perhaps of its total want of irritation: make the principle part of the medical part of ~~Lyme~~ waters.

Lewis's materia Medica p: 74

they cause dense blood & subject it to putrefaction
too much of them cause Contractions of the Vessels. Butter
is easiest mixed with water on account of its
mucilaginous quality easilier digested &
more rancescent than oil, & butter is perferable
to oil here on account of its freshness, but in
countrys where they have fresh oils they may be
used instead of butter.

10 Drink this is either common water or
fermented vegetable drinks X- drink is neces=
=sary for the Digestion of our aliments & forw=
=ard it on thro' the Intestines the latter is
evident from large quantities of Drink being
purgative; It serves to facilitate the misture
of the lymph & Chyle & therefore of use in fas=
=quification, thus it appears that drink is nec=
=sary in a certain degree, but taken in too
great quantities carries off the nutrient part
of our aliment with it, for the more liquid our
food is the sooner it is evacuated, hence Cetaris
paribus a due medium of Drink is best & most
for the nourishment of the body. Water is

the basis of all our drink & every good: fermented liquors quench thirst the best. Thirst has many causes 1st a dryness of the aliments 2d the air drying the mouth & fauces 3d want of moister in the constitution & stomach 4th to help the fermentation; the fermented liquors by their acescency stimulate, & correct alkalescency, & they are nutritive in a small degree: if grown stale & joined with a too great acidity of the Stomach they may cause Diarrhea Cholera Morbus &c.

11 Condamenta these are of different kinds, 1st Aromata as spices, cinnamon, Cloves, Anise & carraway seeds &c. these stimulate the Stomach are carminative & antiseptic & filthy used with vegitable diet. Radishes, mustard & Garlic &c. are filthy used with an animal diet, they stimulate the Intestines, increase the peristaltic motion are Diuretic Diaphoretic 2d. Salt This has been reckoned Antiseptic but it seems otherwise in particular cases, carniverous animals

are hurt by it & wont touch it, but granivorous animals are very fond of it, & it does them good, Dr Pringle says common salt in a small degree is septic, but in a large quantity it is antiseptic, it seems to act as a septic by its alkali or earth absorbing the acid & thereby promoting the putrefaction, it stimulates the stomach causes a secretion of the gastric Lymph &c

3.d Venegar contains many substances in a small degree a saccharine it stimulates the stomach giving a gout or flavor to substances, excites an appetite & forwards the acetous fermentation in acid in the stomach it may do hurt in great quantities. The juice of Lemons is more agreable more acerb & less subject to an active fermentation. 4.th Sugar affords a copious nourishment & might be substituted for common salt, it is anticeptic like it & it would be preferable thereto if it was as cheap & did not pall the appetite it has been said it hurts the teeth but this is an error

for the French eat many raisens & have very
white teeth / sudden visidities of heat & cold
Mercury &c: are most hurtfull to the teeth/
I reckon sugar corrects the scurvey, & the few
putred fevers we now have, some attribute to
our eating Sugar. Pickels made with common
Salt are eat with meat & some vegetables as
Cabbage, but most vegetable substances are pre:
:serv'd by Sugar or Vinegar, & these shoulde
considered only as partaking of the nature of Sugar
or Vinegar, by which they are preserved, thus
Cucumber &c: pickled with vinegar ought to
be reckned only as the vinegar contained in
a spangy substance the partaking only of
the Nature of Vinegar.

Lect 6: 26th February 1766

Vegetable & anamal substances compared.
1st The changes it undergoes in the stomach:
The vegetable substances are subject to aces:
:cency &c.

& that in a greater degree than the animal 57
Substances are to putrescency; animal substan-
:ces are heaviest & most subject to oppress the
Stomach when taken in a great quantity; all
vegetable substances except the oily are easily
miest, but animal substances are much hard-
:er to mix. Vegetables are cooling & are apt to
bring on intermitting fevers, particularly cu-
:umbers Sallad &c: & from their acescency
may cause Diarrheas w.c Continued may term-
:inate in a Dysentery &c: but animal food from
its putrescency is most subject to bring on
Dysenteries. Vegetable substances cause the
hardest faces, But animal substances make the
most & densest blood, & those animals that live
on animal substances have alkalescent blood
& are apt to grow fat & orbesce, the saline
matter of vegetables is mostly Diuretic, & animals
are stimulating & cause greater prospiration than vegetables.

Quere, Whether or no was man naturally formd to use animal or vegetable food? It seems most like: : ly for both as is obvious from natural Instinct & the formation of thier Chylipoetic Organs, The Stomach of man being like that of carniverous animals & the Intestines those of the herbaceous clafs; & upon the whole it appears that shepards & hunters are older than gardiners, we find however that the Pythagorans & Brachonins live chiefly on vegetables, but yet not entirely as they eat milk &c: and they were inhabitants of a warm climate which best suits such a diet, on the contrary the Laplanders live chiefly on flesh & fish &c: also suits thier frigid climate. but yet there is very few animals than live entirely one either vegetable or animal substances.

Q: In what proportion should animal & vegetable substances be used? In a moderate proportion, as to keep the body in a strong state, for gemisters find that lefsening the quantity of fat in thier cocks sensibly weakens thier strength; the athletic eat much

animal food. they began by eating figs: labourers require animal food, & in proportion the more they labor the more they ought to eat animal food; but animal food blunts the mental faculties & hence gemsters w.c should have the most sprightly wits: ould live chiefly on vegetables as likewise children. but animal food in a due degree is necessary as in Gouty patients to keep up a sufficient inflamation in the disordered part of the extremeties to prevent it from going to the stomach & other more dangerous parts. Too great aquantity of preparation of animal food is dangerous & apt to bring on putrescent & Inflamatory diseases, & by stimulating the the stomach cause a fever which continued in time will wear out our frail machine, also by its putrescency it productive of the scurvy & by its acrimony if continued long in the body it is productive of very bad symptoms.

Q: which of the two are preferable? To this we may answer that those who prefer the mental to the bodily powers would choose a vegetable diet.

but gouty Hysteric & Hypochondriac diseases require to be treated with an animal diet as vegetables always cause flatulencies &c/ or the Gout in particular whatever be the cause of it is attended with a degree of inflamation, but its best palliated by temperance, not going out late in the night, & above all abstaining from too much Venery: Vegetables resist putrefaction & are not subject to cause Diathora & therefore are best if taken in a great degree; & its a very great error that we use so more bread than we do, it being the best substance that can be ~~eaten~~ used with our food; was there a number of French & English eating together we might know the French by the quantity of bread they eat; children should chiefly have vegetable food & in proportion as they arrive to full strength & manhood should have animal food. A variety of food is likewise requisite as Liquid with solid animal with vegetable &c.

* Milk is a mild balsamic nutritious fluid; when taken freely, an excellent obtundar of acrid & deliterious substances, & of overdoses of the stronger cathartics & Emetics: one of the best restoratives in emaciated habits, appall=iative whilst its use is continued for the only aliment in gouty cases not inveterate, & in some rheumatic pains; the medicine chiefly depended on in ~~hysterics~~ hectics & consumptions; prejudicial in acute diseases, billious fluxes & Dysenteries, swellings of the prae=cordia, & obstructions of the abdominal viscera.

Lewist materia M: p: 325

Milk is one of the most nutritious & salubrious aliments. Cheese is a strong food hard of Digestion. Butter softens & relaxes, abounds acrimony, & if taken libe=rally flaunts the activity of the gastric liquor & weakens the digestive powers. Neumans chimestry 574.

but fish with flesh seems not necessary but perh=
aps may do no hurt, but manifest injuries happen
from eating milk & fish together w.ch however we seld=
=om do, & prehaps the ill effects they do is the reason
they are not eaten together, fish is difficulter to
digest than flesh & cooling in the manner of vege=
=tables, however mixture may subject us to excess
in eating as too often happens contrary to the advice
of Physicians, many choosing rather to hazard
their health than appetite.

## Of Animal Food

1.st Milk this is properly an intermediate
substance between animal & vegetable nature
prepared from the Chyle & subject to accescency
& that more so in animals feeding upon vegetab:
=le than animal substances. Emulsions of the
Nucis Oleosa resembles milk, but it is not coag=
=ulable *. Milk contains 1.st an oily, 2.d coagulable
& 3.d a watery part, which by standing will be decomp:
=ounded

from each other & the whole becoming acescent either
in or out of the Stomach, in the stomach it is also
decompounded & thus forms chyle & again be=
comes milk by means of recomposition, it dont
heat the body & produce a fever as animal food
does, it is universally eaten especially by the Infa=
=nts of animals, being peculiarly adapted to their
tender nature, & viviperous animals are in a foetus
state nourished by the blood drawn from the moth=
=er & assimulated, & as soon as born nature has
provided milk a substance very fit for them.
A viviperous animals have an Albumen, to nourish
the foetus which is already assimulated to their
nature. It is likewise good in all respects, even
when there is a redundancy of acid in the stomach
it is not bad, as it wont produce so sharp an
acid, as vegetables.

Bread & milk make a very wholesome nutri=
=tious diet yet sometimes it may produce morbid
symptoms in Infants when taken in too great a
quantity; & in Acidities. It has been proved

by Mr. Monro Junr. That the Stomach & Intes-
=tines have a faculty without any acid therein
of coagulating milk like Rennet, more or less
firm.

Milk by means of a redundancy of acid
in the stomach may coagulate so hard as to press
the same.

Mixed with the bile it may prove purga=
=tive but it often causes costiveness, It con=
=tains a large quantity of nutritious matter
resists putrefaction & is cooling, hence its
very good in consumptions, Hectic Fevers
all inflamatory cases Gout &c.

Womens ases & Mares Milk is sweet dilute,
accescent & easily coagulable, but the coagulum
is not hard, hence we see its very good in Con=
=sumptions.

Cows Sheeps & goats milk, are very nourish=
=ing but thicker less accescent & less soluble than
the others.

They all grow gradually from a thin weak & accescent

nature as Womens milk, to a thick strong & more
alkalescent nature as Goats milk.

Milk is subject to a variety of differencies,
1st from the different species of the same kind
from a different formation of their organs
2d at different times in the same animal thus
the Colostrum or milk immediately after de-
livery is thick yellow & purgative being de-
signed by nature to clear the intestines of
their accumulated Feces; 3d by change of ali-
ment, thus cows in the spring of the year
by eating the young tender juicy grass give
more but a thiner milk than in the fall & dry
weather, when it is thicker & fatter. Goats feed
on flowers & on Tops of mountains, Sheep on
low short grass, but cows on tender & long grass
hence the difference in their milk; Horses liv-
ing too much on animal diet have bad alka-
lescent milk, therefore a medium is best.

Milk is prehaps the best diet for children
& sick people that can be taken raw. Some boil milk

which is reckoned good to keep it from a too speedy re- 73
:peration, but the great quantity of watery Habitus dissipated
thereby is apt render it too thick.

Milk is coagulable two ways 1st per se 2d by Runnet
this coagulum is near akin to animal substances it
makes a great quantity of Feeces is cooling & good to
be eaten by those that eat great quantities of anim-
:al food, but its apt to produce costiveness.

Cheese if lean & tough is hard of digestion caus-
=ses costiveness & subject to rancescency its mostly
used as a Condiment.

Cream is subject to acescency & of it is
pure oil & from it butter is made wch is nourishing
but subject to rancescency: Whey is produced
either by Runnet or by its own acescency, the
former is very good for weak people, it contains
a great quantity saccharine matter, but it is
liable to noxious acidity, & then proves purgative.
Goats milk makes the richest & thickest whey
& most nutritious, Cows milk produces thin & weak whey.
Condiment is sometimes used with milk to check its
ascescency, some add honey with good success.

Gentlm.

Lecture 7.th March 4.th 1766 75

The quantity of food that animals require is either absolute or relative regarding the different habit & state of the body & sort of food viz. would otherwise would afford a large quantity of nourishment passes off too soon it will afford but little; the most gelatinous food & longest retained in the stomach & Intestines affords the most nourishment, thus Eggs, Shellfish, young flesh &c: afford the most food, alkalescent food from its being subject to putrescency is easiest converted to nourishment & from its stimulating the Stomach & the rest of the body it is very perspirable, Old animal food is more alkalescent & more perspirable than young w.c is more gelatinous & tender, & old animal food affords the most nourishment contrary to the common opinion of people, Sheep live upon dry food & in France Mutton is reckoned better than Beef.

Linnæus has divided animals into 6 Clafses viz:
Quadrupeds, Birds, Amphibeous Animals,
Fishes, Insects, & Worms — In the Amphibeous
Clafs the Viper, Toad & Frog are the most noted.

## 1.st Of Quadrupeds.

The Orders of the Quadruped clafs are reckoned
by Linnæus 6. the chief of which used in food is the
Pecora domestica, living mostly on vegetables &
hence have very wholesome flesh, they have a bi=
=valvular heart red & warm blood & have an alterna=
=ate respiration; of this order 4 Genera only are gener=
=rally eat viz: Cow, Goat, Sheep, & Heart,

Beef is more firmer than Mutton more Soluble
by the Stomach, equally perspirable & nutritious; the old=
=est most Soluble.

Mutton affords good nourishment, Lamb
is more fibrous & less soluble than Veal.

Goats live chiefly on high mountains & dry
Land food their flesh is strong fibrous & not easily soluble.

Of Deer there are many kind their flesh is alkalescent & very good, red deer are toughest & least soluble.

Of the order of Glires there is not commonly used in diet but one Genus viz: the Lepus w^ch^ includes the Hare & Rabbet. The Hare is very swift & its flesh difficult of solution. The Rabbet uses but little exercise, its flesh is fine tender moderately alkalescent & easily soluble in the stomach, it seems strange how there should be so much difference between two animals nearly alike in appearance & of the same Genus.

Swine are the only domestic animals that are of no use while living & hence seem to be intended for food tho' many restrain from Pork as the Jews Mehomitans &c. The Hogs is an animal that uses but little exercise & of consequence its flesh is tender easily soluble & easily made fat & remarkably white, its but perspirable gelatinous & very nourishing as is evident from the athletic eating much of it, its also somewhat hot & alkalescent, & in warm climates & from its

being but very little perspirable it has been thought
to be bad for the skin & by some even to cause a leprosy.

Many other animals are eaten of the Quadruped
class in different parts of the world. The Delicate
Greeks used to eat the flesh of asses. The Persians Comedy

## 2d of Birds.

Linnæus comprehends the class of Birds under 6 or-
ders of w.h only are used in diet the others being
mostly carniverous are rejected.

1st Galinæ, as the Gallus & Gallina these are
domestic & live mostly on grain they are of a tender
structure & easily soluble if taken at a proper age
which is about a year old if very young they are
too gelatinous & if too old tendinous & hard, the Cock
is much more delicate when Castrated, but the method
sometimes used of keeping them entirely confined is
not good as some exercise is necessary for all ani-
mals to make their flesh tender & agreeable, & a
fat fowl allowed exercise is heavier than another

of the same size fatted without being allowed exercise. Turkey is nearly like that of the preceeding, Peacock is of a firm & hard texture & not very good for food.

Patridge & Quail are more tender & alkalescent than Tame fowl, & are apt to cause a nausea, or dislike against them if eaten too frequent.

Lagopyrus or more fowl are by some reckoned good. Tormahants inhabits the Tops of mountains & thier flesh is very firm.

2d. Anseres are mostly aquatic fowl, carnivorous & some of them mudsuckers they are more alkalescent & more difficult of Solution than the Galina.

Tame Duck are very good particularly at certain times of the year when they are fat, when very old they are hard & firm, Masecvey Duck is an exotic.

Teel are very fine & Tender, Tame Geese

are more soluble than the Duck,
The Swan is firm & very rarely eaten.
The Solan Goose is an exotic, little known
it mostly inhabits the highlands on the
North of Scotland.

3d Grallina are mostly aquatic distinguished by thier having long beaks with which they catch fish & suck the mud, they have mostly very long legs resembling the stilts the romans used to walk upon called Grallia & from thence this order of fowls have thier names;

The Ardea include the heron & Bittern, The Scolopax the Woodcock, snipe &c: The Tringa the lapwing grey & green Plovers. The Woodcock & snipe have ducky flesh & not much eaten, the Tringa are pretty good.

4th Passeres the quality of these are different from their different food & exercise, we

shall only mention 4 genera viz: the Pigeon,
Lark, Thrush, & yellow Hammer. The Pigeon
when young is very heating. The Lark is

The Thrush is

3.d of Amphibea.

The flesh of amphibeous animals is between
that of Quadrupeds or Birds & fish, the males
have a double penis. Linnæus divides them into
3 orders Reptilia Serpentaria &
1.st Reptilia as the Turtle &c. is said to tinge
the urine of a Green Colour & the sweat sometimes
es so as to cover linin, from hence it seems to
be endowed with some remarkable properties.
Lizards are rarely eaten there is a species
of frogs called by Linnæus Rana Esculenta.

2.d Serpentaria few of this order are used as
food we shall only mention the Vipes this animal seems
to merit but little of what has been said of it. used as food it is very
good & as a medecine its chief properties consists in its
containing a volatile salt.

Fish in general are of more tender ~~Texture~~
than flesh not so nourishing less perspirable & lie
longer in the Stomach than flesh, butter is often
used with fish prehaps from an observation that
it was of a good use. Fish are sometimes divi=
=ded into the Fluvialis & Marina these are some
=what different from their different places &
food.

of River fish are the Salmon Barbil
Murdy River Perch &c: they are mostly ten=
=der easy soluble alkalescent nutrient &
heating to the system.

Fish are also distinguished by having
& not haveing scales.

of Seafish having scales are the Haddoc
Whiting Cod &c: w: are good & less gelatinous
than those without scales, Mackrel is most=
=ly eaten pickled. the Scomber Gurnel & Mu=
=llet are very good, pikes are voracious
not alkalescent but heating, Clupia are succulent

oily & alkalescent and heating.

The Cockle Paddle &c: are of the eel kind with out scales very nutrient. The Eel is hard & gelatinous :nous.

5th of Insects.

These are by Linnaeus divided into 7 orders. Insects are commonly some of them considered as fish as the Crab, Lobster, Snail &c: The lat- ter is like a locust gelatinous & easent to the taste, but cause nausea in some people.

6th of Worms.

Linnaeus makes 5 orders of the Class of Worms, Two of which is only used in Diet viz: Molucca & Testacea. There is but one species of the molucca used viz: The cuttle fish. Of the Testacea there are many as the Podshel, Garden Snail, Periwinkle Cockle, Clam, Oister, Muskle, & many more. These are mostly easy soluble not very perspirable but very nutrient. The Testacea are generally considered as unival-

=vulat or Bivalvular.

Univalvular as the Snail having one
Crusted Shell called Operculum.

Bivalvular, the best of these is the Com=
=mon Oister w.ch is very good nutrient & easy of
digestion if eaten raw, but when corked they are
much harder of digestion.

The last we shall mention under this hea=
=d is the Volucrum Ova or Eggs of Birds these
are very nutrient they are formed of the purest
matter for the nourishment of their tender
yound, they afford little or no Faces, seem
to be dissolved in the stomach after being
coagulated, only by putrescency, they are
Visid, not perspirable. They seem to be betwen
vegetable & animal Food, may be eaten
very steady without causing nausea, tho
some cannot eat them at all.

Lecture 6th March 7th 1766.95

# Class 2d Adstringentia

Gentlemen we come now to speak of the first Class of medecines, as you may remember we devid: ed the whole materia medica into two parts Diet & medicine the former we have spoken of allready.

Medicines acting upon the simple fibres are of two kinds 1st such as Increase thier cohesion & 2. such as diminish the same. of the first kind are astringents & of the second Emollients.

Astringents cause a nearer proximinity of the simple fibres & solida viva, thus alum applied to the tongue, constringes it, this seems to be effected by means of the Nerves, as also when taken into the Stomach in a remarkable manner & is propogated throughout the whole system by means of the Sympathy of nerves, being effectual in stopping Hemorhages

The particular Indications where Astringents are necessary are 1st In great evacuations of all kinds. Sedatives in this case may sometimes be said to act as astringents, by allaying the to great impetuosity of the fluids, in a too great acrimony of the fluids demulcents are necessary & may act as astringent.

Styptics stop evacuations either by thick=ning the fluids, or constringing the solids.

2. Astringents are Indicated in a Laxcity of the simple fibres. 3d In a debility of the moveing fibres or solida viva when as=tringents are used in these Indications they are called Corroberants & Tonics.

4th Astringents are sometimes indicated in Spasms & Evacuations from an irregu=lar moving of the Fibres. & Astringents are sometimes used in Healing of wounds & these a called Vulneraries.

Astringents are contra indicated 1st If too long used they cause a Constriction & Lethonic

Symptoms 2d: they destroy the mobility of
the fibres if too long used & thence may caus-
-e Palseys, & there is the greatest Judgem-
-ent imaginable necessary to know when
they ought to be used & when to be left off.
even in great evacuations they may do agr-
-eat deal of hurt if given at any time thus
in an acrimonious Dysentery if it is stopt
immediately before the cause is carried off. the
disease may be transfered to a more noble
part than the Intestines, & may prove of
worse consequences.

Astringents operate more actively upon
the part to wch they are immediately applyed as
the Stomach & Prima via, & great caretho-
-uld be taken not to stop a natural with a mo-
-rbid evacuation. Finally astringents must
not be administred in a Plethora untill a
sufficient evacuation is made.

Means of discovering the astringency of medicines

× the Armenian Bole is an argillaceous earth with a small portion of Iron wch gives it its color & a little acid. It is styptic.

Hauman vol: 1 p: 30

1st By other arts as the tanning of Leather, their effects on leather being the same as on the human body, tho' some substances contain also a matter which would be hurtful to the Body. 2d It is sometimes discovered by an Acerb Taste 3d A decoction or Infusion of all Astringent substances strikes a black color with Green vitriol; the astringency of Substances resides mostly in their solid parts, as in the Bark, Wood, & Roots, of Vegetables; the acerb taste is in the juice.

Astringents act more powerfully in solid substance than in solution; this rule holds good in all vegetables.

Astringents are divided into Vegetables & Fossels.

Fossil astringents may be reduced to 3 kinds

1 Earthy 2d Saline 3d Metalic.

Earthy Astringents are at present reckoned but few & may be reduced to 2 heads viz: Boles Clays & Absorbents. The term Bole is not slightly x fixed

* the obvious & imediate virtues of absorbent Earths are to obtund acid humors in the first passages.

L m: m: p: 555

however they are all equally good & may well enough be spared & might be expunged out of the materia medica together with all earths not soluble in our fluids, as they are good for nothing. Bdes of clay contain an earth of Alum but precarious.

bimoha is at present rejected.

Astecolla is a substance formed by concretion often about the roots of plants it has absurdly enough been reckoned a bonebinder as it posseses no such quality.

Absorbents * have all been reckoned astringent but some of them on the contrary, in particular cases, often prove Laxative, otherwise they may do hurt as D^r Pringle from experiments say all absorbents are Septic.

Saline Astringents the Chief of w^ch is Alum the natural history of w^ch we are Lately acquainted with when in an earthy mineral state it is called Alumen Plumosum but when it is in a Clean Crystalline form it is called Rock Alum

℞ Alum is a strong astringent, one of the strongest of the substances of that class. It is in common use for external purposes; against relaxations of the Uvula, in Gargarisms for spungy scorbutic Gums; in Epitheems & colyria for inflamations & defluctions of the Eyes &c. Internally it is given in small doses of ½ a grain or less as a mild Corrobesant, & in larger ones as ten, fifteen & sometimes twenty grains for restraining immoderate hemorrhages Lew: m: m: p. 36

Neuman p 286 vol: 1

or Roman Alum, its sometimes a little colord &c.
is called English alum w.ch is as good as the Roman alum.

Alum + is a speedy & safe sypptic, quicker than any
of the metalic or vegetable sypties, is exceeding good
in inflamation of the Eyes by bracing up the Ves-
sels & stopping the impetus of the blood to the
part I have seen surprising good effects of alum
made into a Curd with the white of an Egg & appl:
:ied to the ~~white of an~~ Eyes when inflamed.

It remarkably braces up Lax scorbutic Gums &c.
internally it is of service in Hemorrhages of the
uterus & other parts most conveniently given mixed
with Sanguinis Draconis into a pill, the Pill is
best made by melting the Sanguis Draconis & then
adding the powder of alum thereto, it is sometimes
given in intermittings mixed with nutmeg or Gentian
answering instead of the Bark it may likewise be
given in continuel fevers where astringents are
necessary, it ought to be used in small doses often;
about 3ss of alone or else in form of a Pill as above.

* pure copper in its metallic state or calcined by fire appears to be indissoluble & of no considerable effect, in the bodies of animals.

dissolved in the nitrous or marine acids & crystallized or exsiccated by heat, it proves a strong caustic. Combined with the vitriolic acid, or with the acids of the vegetable kingdom or corroded by the air, it acts when externally applied as an efficacious detergent & gentle escarotic when taken internally as a virulent Emetic & Cathartic.

A saturated solution of it in volatile spirits is recommended by Boerehaave in disorders proceeding from an acid, weak, Cold, phlegmatic cause

Lewis's materia medica p. 237

Lapis Hibernicus is a kind of slate A 107
contains alum but is far inferior thereto & is
much better left out & alum instituted in its room.

Metallic Astringents

Copper is very acrid so that the stomach throws
up even a small quantity of it. Ergo is very
acrid, but Copper combined with a neutral salt
is less acrid.

In small doses it proves a powerful Stimulant
vomits Purges & has been found by its stimulus
to prove Diuretic. *

Ens Veneris of Mr. Boyle is a Calx of
Copper not so acrid as the above It has lately been re-
=vived & reckoned good in the Rickets &c. Mr. Boy-
=le sayes it produces sleep.

Lect 9. March 10th 1766.

Mr. Boyle says Copper promises more virtues in
medicine than any other Metal, it is astringent &
poison to all Insects, hence its Anthelmintic qua-
=lity; externally used with copper with acids detergi

* To constringe & corroberate the animal solids ap-
=pears to be the primeary medical operation of Iron.
L: M. M. p: 265

Iron is mechanically the most useffal & medically
the most salutary of all metals. Though it always
acts by an astringent quality it often proves in its
consequental effects aperient: promoting natural eva-
=cuations where the obstruction depends upon a laxe-
=ity of the Vessels; as well as restraining immoderate
ones arising from the same Cause.
Neuman Chemis p: 74.

Wounds & ulcers eat down fungous flesh & is escarotic, & was used in those intentions by the ancients but since the use of mercury it has chiefly been laid aside: The Disease w.ch appeared in England some time ago called Angina Ulcerosa yielded only to preperations of Copper: internally its dose should be small & often repeated.

Iron is a metal more in use in medecine than Copper it dissolves in all acids (at least its medecinal parts) & should be prepared by an acid before taken, for if it is taken in powder its much more precarious.

All the preperations of Iron are nearly alike therefore we consult chiefly eloquence & form. Lemery prepared a powder of Iron by putting it in water w.ch will dissolve part of it &c

Salt of Iron & tincture is the commonest preperations. Iron is purely astringent having none of the stimulating quallity of Copper & Mercury & free from the noxious Deliterionsness of Lead *

The two opposite qualities ascribed to Iron of astringency & Aperative depend upon the same principle for in a Laxness & Debility of the Vessels by its astringency it proves Tonic, bracing the fibres & Stimulating the same increases the celerity & force of the fluids & attenuates the same. It should be exhibited in small doses & often. There is another preperation of Iron the mineral Waters w.c often do more good than all the medicines in the apothecaries Shops, this seems to depend upon their containing but small quantities of Iron, for weak Chalybeates often exhibited prove the most effectual, it is sometimes given as an Antispasmadic in hysteric cases, but in hypochrondriacs it seems improper to give Chalybeates, for hysteric & hypochoondriac affections differ in this that the former often is attended with a Laxness & the Latter with a Rigidity of the fibres with a great sensibility of the Nerves & Debility.

Astringents are improper in Inflamitory Diatheses Hemoptoes &c

† It is one of the most certain of Calybeat medecines, scarcely ever failing to take effect when the calces & other indissoluble preperations lay inactive through the intestinal tube Lewis

* The effects of Lead on the human body are dangerous Neumann

Blood stone & Red Oker are Ores of Iron, but as they have no properties but what depends upon the Iron & therefore are never used.

Green Vitriol is used as a strengthining & Deobstruent medecine in no respects different from Salmarts

Lead is only used in combination *

Minium & Cerus are used in Plasters.

Lead combined with an acid is a very powerful medecine, with the vegetable acid it formed a sweet substance which in a solid form is called Sacch: Saturni & if fluid Acetum Lithargii.

Sachrum Saturni is used in Inflamations of the Eyes being a more powerfull repellant than alum; its recommended in Solution in the Erysipelas; But how far repellants are proper in this distemper is a matter of Doubt. Its improper in gangrenous cases. Combined with mercury I have known good effects produced in scrophula but its dangerous; used internally its a more powerful astringent than either Copper or Iron.

* Calamine, Tutty, Pamphlagx & the flowers of Zinc are applied externally in unguents & other forms as deciccatives & epulotics, against running ulcers, excoriations of the skin, & desfluctions on the eyes. by some they have been exhibited internally. It is said that the flowers given from gr.s VI to XII proves sometimes adorifie & sometimes purgative or Emetic.

Neumanno Chemistry p.: 26

X Sulphate of Iron is sometimes given from 3 or 6 grains to ½ a dram & more as an Emetic. Appears to be one of the quickest in operation of those that can be used with safety.

Lewis m.: m.: p.: 576

Neumann thinks it may well be spared as an Emetic as it does not operate as well as Emetic Tartar. Its principal use is in Collyria for Inflamd Eyes v.: 1 p.: 64

it has been given in obstinate hemorrhages of the uterus &c: but if caution is necessary in the exhibition of astringents it is much more so in this from its deliterious quality; some put Lead into sour wines to render them sweet but this is very dangerous.

Zinc, Lapis Calaminaris, & Tutia have lately been introduced into the materia medica* The flowers of zinc are by some reckoned by some to have extraordinary qualities. Calamine & Tutty are inert, give no tincture with water; the former is used in composition of Turners Cerate called in the London Dispensatory Ceratum e Lapid: Calam: its a repellant & Exiccant as is also Tutty & they have both been reckoned Opthalmics.

Vitriolum Album is a salt of zinc combined with heterogeneous substances its astringent & used in inflamation of the Eyes. x Its aquick Emetic.

& animal substances except burnt bones
are used under this head.

Vegetable Astringents are weaker & acts lower
than fosil astringents, therefore in urgent cas
:es fosil astringents are to be used. It ought
to be observed that fosil astringents are best giv
:ven in Tinctures; & vegetables in Substance,
as any tinctures made from vegetables would
be so weak as to produce no effect & are more
liable to have thier astringent quality changed
by fermentation than when given in substance.

In slow case Vegetable astringents used in
a solid form are best & safest, I have before
said that astringents are proper in Laxity diz
:bilities & in immoderate Evacuations as
Hemoptoe, Hemorrhoides, immoderate dischar
:ges of the Catemenia, Diarrheas, Dysenteries
Fluor Albus &c:

## Of Particular Vegetables

The first & in the Catelogue are the Succi cosa
of Linnæus proceeding both in Natural order & property

X The roots of Silvefinger are mild astringents & give out their astringent matter both to water & spirit

X Tormentil is a strong & almost flavourless astringent & gives out its astringency both to watts & rectified spirits do page 164 Lewis m.m. p. 625

Madder gives a durable red dye to woollen &c. tho prepared with alum & Tartar.

Here we see the advantage of Botany.
The 8 plants all agree in quality differing only
in degree. Five finger Roses & Tormentill are
the powerfullest astringents; Five finger has been
used in fevers ever since the days of Hyppocrates ℞
Tormentill is used in Germany in intermitting
fevers ℥ss to ℥i ℞
2° Stellata of this order we shall only men-
tion 3 Aparine, Galls & Madder the Latter tinges
ces milk Urine & bones red, & has been reckoned
good in the Jaundice; but aperients & resolvents
seem necessary in this disease ~~but~~ As proceeds
from obstructions of the billiary ducts, as also
vomits by their agitation are good.
3 Vaginalis these belong to the 27 order
of Linnæus's natural fragments they have aci-
cid joined with austerity. Rhubarb ℞ is purga-
tive in large does as well as astringent. Bis-
tort. is the purest astringent of any of this
genus.

Sorrel & Dock is very good in scorbutic Decoctions.

4 Tilices These belong to the 6th order of Linnæus's fragments. Tirn has a sweetness joined with its astringency. they belong to the Cryptogamia Cass of Linnæus's Sytaria Natura Anthelmentic Diuretic Lithontriptic & Antispasmodic virtues have been ascribed to them. Cupmoss called sometimes Licken is often used by old women in the Chin Cough or Tusis Convulsiva. D.r Mead also recommends a species of the Licken in this Disease instead of the Bark.

6 Irregular Vegetables not agreeing in natural Character, but agreeing in quality; Sloes, are the strongest styptic in this order they are good in Dysenteries & Diarrheas proceeding from a too active fermentation caused by eating too much fruit &c: for by their acerbity they check fermentation. best administred in Form of a Rob:

6 Miscellanea or vegetables agreeing neither in botanical character nor sensible quality:
Anchusa belong to the Asperifolia Class of Ray:
it has little astringency best given in Decoction
or Infusion. +

Balaustines are the flowers of the Punica or Pom
granate Tree Brunell belongs to the Verticell.
latæ Class of Tournefort is but little astringent.
St Johns Wort has a bitterness mixed with astringency
its oil is terebinthinate & contained in Cells in the
Leaves & Petals thro' which we may see. It has done
good in maniac & malancholic cases.

Lythrum, De Haen says he cured Dysenteries
with this given in doses ʒiss morning & Evening.

Yarrow is used in flatulent Cholics. + I frequently
ordered it when in the Champain made into a Tea
for Dysenteries. Myrtus is astringent & strengthning.

Plantain is not much used. D^r Clark says he used
it often with success in large doses in hemorrhages
Hemoptoe &c: with Venesection & Low diet.

Solomon's Seal its flowers, berries, & leaves, have a poisonous quality, the root is acrid but this acrimony is dissipated by boiling, its used in decoctions with milk in hemorrhages; (women are more subject to this disorder than men but if they have their menses regular at the same time it may be checked without danger). Sanicle is of the umbellatæ class of Tournefort its of a bad acrid quality & very little astringent. Leeks applied to the Corns is said to rot them. Misleto has been found to do good in the Epilepsy in the beginning of it's as it often proceeds from laxity astringents are necessary. it has a bitterness joined with its astringency, & is the same let it grow on what tree it will, hence appears the particular organization of bodies. Its bark is best, dose ℈ss to ʒi.

Nettle is used to advantage in Decoctions in the hemorrhoids & Dropsies.

Uva Ursi, very extraordinary virtues have been ascribed to this plant of late by van Swieten & De Haen

& others, in Gravel Strangulations Ulcers of
Kidneys Bladder &c: its best given in substance
3ss three times a Day for a long time.

## Lecture 10th

Acacia or Thorn is a very simple astringent
having scarce any other quality.

Catechu or Terra Japonica is used in
Gleets Dysenteries Fluor Albus &c: &

Sanguis Draconis is the Gum of a Tree & is
employed as an astringent but is not very soluble in the
stomach it is commonly used combined with alum &
prhaps the astringency of the Alum has been ascribed to
it: it should be made into a Pill by melting the Dragons
Blood over the fire & then adding the powderd Alum mak-
:ing the mass to consist of 2/3 alum & 1/3 Dragons Blood.

Cortices, Granate ash & horsechesnut have an
astringency with bitterness they are sometimes used
instead of the Bark in intermittents.
Semirauba has its virtue well vouched, given some

sometimes as astringent, the French say in large doses it causes Nauseas & Vomiting.

Logwood is astringent but its firmness & stature makes it little used. Dr Pringle recommends it in the last stages of a Dysentery.

Galls are fungus & excresences growing from a puncture. being a nidus of a great number of Insects, they have all the same astringent quality growing on what tree soever agreeing in this with mistele & other Parasitical plants; they have a pure astringency as is evident from thier effects on leather & on Ink, give out thier virtues to watery menstruums, & in France they are used to cure intermittents.

Acids, that acids are astringent externally applied appears from thier corrugating the fibres of the lips & pressing the Red blood out of them; some have imagined that all acids act in the same manner, but in different degrees; but there is a manifest difference between Vegetable & Fossil acids, prehaps from the vegetables undergoing a degree of Fermentation in

the stomach, but fossil acids wch are taken in a dilute state are not changed in the stomach & prove Diuretic by thier Stimulus. Vegetable acids differ in themselves, for the native acids of unripe fruits not having undergone the acetous fermentation are apt to produce it in the Stomach & thence cause flatulency Colic &c.

But Vinegar being already thoroughly fermented will not produce the preceding symptoms having in a small degree an astringent with a sedative quality.

Austere Wines are apt to have thier actide fomentation renewed in the Stomach & hence cause spasms Colics flatulency &c they are most astringent when burnt some endeavour to specefy the qualities of Wines by thier Color reckoning the red wines austere White wines mild & Sedative Madeira wine Stimulating but this wont Always hold true.

Bitters have mostly an Astringency joined with thier Bitterness thence they are Tonics and corroberants.

Sedatives & Balsamics are only astringent in a secondary manner. Sedatives by lessoning the impetus of

the blood in hemorrhages & allaying the motions of the
Solids may stop hemorrhages & thence be called astring=
=ent. Balsamics are improperly reckoned Astrin=
=gent, they stop secretions of Urine perhaps
by exciting an Inflamation & thus decreasing
the Diameters or by strengthening the ac[illegible]

Exsiccants as Clays &c: externally
applied they are drying but not so when taken
into the Stomach, they have been ~~reckoned~~
recommended in Compleints of the Skin &
in the Erysepelas which seems to be rather
a Disease of the Rete mucosa than of the
Skin.

---

# Class 3. Emollientia

Emollients are such medicines as lessen the cohesion
of our simple fibres & Solids in w[illegible] they act directly
contrary to that of astringents: As fibres are
composed of very fine filaments connected lon=
=gitudinally by a tender cellular membrane & Gluti=
=nous Substance, Emollients act therefore either by dis

=solving the Gluten or by interposing a fluid sub-
:stance between the fibres.

The effects of Emollients are local or chief-
:ly confined to the place where they are applied, relaxing the
solids by wch means a greater flow of humors are admitted to
the part where they are applied: hence the doctrine of
revulsion & Derivation; on the Contrary the operation
of astringents is Continued thro' the whole body.

Indications where Emolients are proper are
1st a Dryness of the fibres 2d Rigidity 3d Distention
& Inflamation of the fibres 4th when it is proper
to encrease the Laxity of a part for the sake of
Derivation & revulsion, how far it is practi-
=cable or proper in this case is a matter of Doubt
for if we take of the Tension of a part by lessening
the quantity of fluids we Relax the whole sys-
=tem at the same time: I have known an In-
=flamation not bigger than a pea Disturb the
whole body. Emollients sheath Acrimony as its
quality is contained either in the water oil or mucilage of
bodies.

Water is the most penetrating but is apt to be too soon dissipated leaving the parts dry.

Oil is a more durable Emolient than water & not so soon dissipated.

Mucilage consists of a watery & oily part: the water of w.ch soon evaporates.

Oil is said to stop the Pores of the Skin but this is a false Thesis, for they are not so easily stopt by reason of the great force with w.ch the perspirable matter flies off & it should seem by its relaxing quality that it will encrease perspiration as it appears to do in a Coryza by relaxing the rigid nares & in an Angina.

Spirits should never be used with Emolients as it Counteracts them the best way of obtaining the Emollient part of Vegetables is by Expression.

## Vegetable Emollients

1.st Malvaria this is a natural order of Linnaus of which we have only two in the Catalogue viz.t Althaa & Malva, the root of the althaea is best used internally

its demulcent, & externally Emollient. Malva
may very well be substituted in the room of the
althæa having the same qualities tho' in a lesser degree.

2. Farinosa, Hempseed is inferior in its me=
=dical virtues to flaxseed.

Quinces are Demulcent & very easy of Dig=
=estion Fenugreek contains an oily & mucilagi=
=nous substance of a hard texture, but is an Emoli=
=ent in Cataplasms.

Flax Seed Taken internally its Demulcent &
Pectoral externally Emolient, its oil is very nauseous
to most People & therefore Malva is mostly substi=
=tuted in its stead as answering nearly the same pur=
=poses.

Psylli is mucilaginous & Emolient but as it
is an exotic it may very well be left out of the
catalogue.

Oleracea These are said to contain a mild
nitrous Salt & to be attenuating & Emollient
but I think no Salts can be Emollients but
Stimulating

Bonus Henricus, in this we see the neces-
-sity of being Botanists, there is two species of it,
by most writers on the materia medica its called
Mercurialis.

4 Irregularia, these are such as do not
agree in natural order.

Chick weed is almost insignificant.

Boran cursine

Melilot is of the Leguminous Clefs of Tourn-
-efort it was reckoned Emollient Perhaps from
its having a soft leaf. its put in plasters designed
for Dreping blisters but it might very well
be laid aside & a little verdigrease used in its
stead in the same intention.

Soap Wort this will raise a froth like soap, it is
reckoned Apperient & Diuretic. x

Mullein is but little Emollient.

White Lilly Root & Roasted Onions are good
in Emollient Poultices.

Bland Oils are mild & Emollient.

## Of Animals.

Milk is very little worse Emollient than water

Animal Oil or Lard is to be preferred before all the other parts of animals: they are all nearly alike.

# Class 4 Stimulantia

Stimulants are such as act more immediately on the solida viva or Nervous System either directly or indirectly, first by acting immediately on the Nerves to w.ch they are particularly applied, in the latter case by communicating their effects with the sensorium Commune, this is the most general.

Cold is a very powerful Stimulant & causes a Proximity of fibres.

Many Theories have been advanced to explain the operation of Stimulants in the human body, Some Mechanical others Chemical, Some imagin there are local Stimulants or causing the Secretion of particular humors only as Urine Sweat &c: Some reo=

× Blisters - Hippocrates recommends the internal use of Canthariides, but was unacquainted with their external application. Aratæus Cappadox was the first that employed them as Vesicatories & he ordered the patient to drink milk three days before their application to prevent a Strangury. They did not come into use untill the 17th Century when they were again revived in Italy, & their use from that time became universal. From the use of Epispastic medicines the following direct effects are produced - They excite pain. they increase the quantity of fluids circulating thro' the part to wh. they are applied; they produce a serous discharge; they produce a discharge of Pus. The changes induced in the system from the primary effects of Epispastics are attention to the sensation of pain excited by the application of the Epispastic - An increase of excitement in the Nervous Energy through the system in general - an uncommon determination of blood to the part particularly acted upon: a diminution of the quantity of blood passing thro' the blood vessels in the Neighbourhood of those in wh. the flow of blood it increased; a permanent change in the mode of circulation; A diminution of the quantity of circulating fluids; & a particular diminution of the serous part of the blood. The different Articles referred to the class of Epispastics may be distributed into the following Orders. 1st Epispastica Rubefacientia - as examples of wh. may be mentioned Sinapi Alk Vol.

reckon specific Stimulants as Light to the Eye.
Sound to the Ear &c:

Topic Stimulants, some excite heat others
raise blisters, Some prove Tonics others Clonics, Or ex-
=cite those two motions in the body according to Gau-
=bius the extend their operations to the remotest
parts of the body by means of the sympathy of
parts as we see a Stone in the bladder by its Stimu-
=lus will cause Vomiting &c: the Stomach howe-
=ver not being primarily affected but in a Seconda-
=ry manner by the Sympathy of parts.

All Evacuants Stimulate but we shall
not reckon them such under this Class.

Stimulents are Indicated 1st In a Languor
& Sluggishness of the humors 2d. In a debility of mo-
=tion as in the Chlorosis of Virgins. 3. In a
weakness & Laxity of the Vessels and inertia of the
vis vitæ as in Dropsies Leucophlegmacia as
also in Vertigo's, Serous Apoplexies, Cold Head
achs &c: In a Languor accescency & Debility of the
alimentary Canal & in the Gout of the Stomach

2. Epispastica Vesicantia, as Canthorides.
3. Epispastica Suppurantia, as Issues & Setons.

146 The indications w. Epispastics are capable of fulfilling may be derived from the 3 following sources 1st. From their action on the Nervous Energy. Hence they may be employed to diminish violent pain to take off ye effects of uncommon sensibility to remove torpor.

2d. From their action on ye balance of circulation hence they may be employed to diminish ye impetus of the blood against any part morbidly affected - to diminish a morbid increase of action in Vessels in the Neighbourhood of those to wch they are applied.

3d. From their production of evacuation, hence they may be employed to diminish ye quantity of circulating fluid when too great for the State of ye system at the time - to evacuate morbid accumulations of Serum. Their observations may be illustrated from practical observations concerning the use of Epispastics in case of Tooth ache Hemorrhagy, Apoplexy, Opthalmia, Hepatitis & Hydrocephalus.

The principle circumstance respecting the choice of orders in the Class of Epispastics may be deduced from the following observations concerning each.

1 Epispastica Rubefacientia The individuals referred to this order are not extensively applicable to answer the purpose for wch the Class may be employed - They are fitted to fulfil some indications from an action on the nervous System; They are preferable to other Epispastics for the removal of Torpor when suddenly

aromatic Stimulants are very proper & prove benez
=ficial.

## Lecture 11.th

Stimulants are contra indicated in all Sangui=
=neous Constitutions in glandular obstructions in
the Close of long Fevers; When the Solids are too much
Streched: In a sinking of the Pulse they should be
used with caution; mild Stimulents may be used
after the use of Emollients; frequent use of Stimulants
have a tendancy to destroy the tone of the System; they
should be used first in small doses increasing gradu=
=ally & when we want the Solids braced up. cold bathing
is proper.

Stimulants are often distinguishable by thier
taste & their Strength chiefly resides in their essential
oil w.ch in Some of the clases as the Seliguosa is extrem=
=ely volatile: sometimes their acrid parts resides in
the gummy substance w.ch may be extracted by water.
but the best manner of extracting the Stimulating
quality of Vegetables is by means of alkohol or an
Extract, if exhibited in Substance we should consider

required - They may also sometimes be ~~required~~ employed to fulfill indications in changing of. modes of circulation; but they are rarely in this intention preferable to the other orders - From the degree of effect they produce they are applicable chiefly to those cases where slight & transitory changes are wanted. The constitution to wh. they are principally adopted are dry spare habits, those wh. would be hurt by any degree of evacuation, & those much debilitated by long continued diseases.

Epispastica Vivantia. The individuals belonging to this order are from their nature adopted for all the indications to be answered by the class; they are particularly preferable to all others when evacuation is suddenly wanted. From the degree of effect they produce they may be employed when the highest charges are requisite; they will scarce admit of being adopted where slight changes only are proper. The constitutions to wh. this order are chiefly adopted are the serous or Phlegmatic, those in the prime of life, & those affected with acute diseases.

Epispastica Suppurantia. The individuals referred to this order are from their nature adopted to fulfill those indications wh. may be answered by a change in the determination of the blood. They are frequently of remarkable service in diminishing the impetus of the blood in parts morbidly affected. They may also be used with advantage to diminish a morbid increase of action in neighbouring vessels, if considerable effect be not suddenly required. They may be used likewise for some purposes to be answered by evacuation. They are not adopted to diminish the quantity of Circulating fluids, but they

their different degrees of Solubility in the Stom-
:ach, & be careful in reducing them to Powder to
prevent their volatile parts from flying off. Many
Stimulants have other secondary qualities.

## of Vegetables.

1 Verticillata this is a very natural order & the
58th of Linnaus's fragments, they have all of
them similar virtues though some materia medica
writers divide them into Cephalics. Cardiacs & Pectorals

Betony Betony numerous & even opposite virtues
have been ascribed to this plant, its efficacy is
but small, & may stimulate the membrane of the
nose & prove an Errhine, some say it is an
Anodyne. x

Baum Baum Though many virtues have been asc:
=ribed to this plant yet it is but a weak Stimulant. x

Lavender, Marjoram Origanum
Rosmary x & others have a great quantity of
very fragrant essential Oil.

may be of service for evacuating serous accumulations they are chiefly of use for this purpose when they are deep seated & so cannot be easily acted upon. The constitutions to wh. they are adopted in preference to any other are the aged the irritable & those laboring under chronic complaints

The cautions to be observed in the employment of Epis-
-pastics as derived from their nature chiefly respect the pain wh. is occasioned by their action, especially when this has no tendency to remove the complaints for wh. they are used. The inflammation they excite in wh. part to wh. they are applied, & wh. strangury is a frequent attendant or their operation. The conditions of wh. system wh. chiefly require attention in their employment are, the female sex & phlegmatic habits. The circumstances chiefly to be observed with regard to wh. regimen necessary during the class, respect the accomodation of wh. diet & temperature to wh. decline of wh. patient, the use of Demulcents & Diluents: The strength of the order of Vesicantia, the treatment of wh. part after they are removed, & the continuance of Epispastic applications, when the order of Suppurantia are used. Blisters are chiefly contra indicated by wh. presence of wh. following morbid states. An high degree of irritability in the system in general: mor-
-bid putridity of the blood, or a general inanition of the fluids.

We shall now speak of the use of Blisters in-
fevers. When fevers are accompanied with a head ache of a dull kind, & coma, Blisters are commonly useful. Blis-
-ters are also of service in local inflammations, as in the Pleurisy, after bleeding, likewise in Peripneumony, when the Pulse is just lowered by blood letting. The effects of Blisters in continued fevers are doubtful while the Pulse continues full & strong, but they are of use in their decline when the pulse sinks. From Dr Lind's act, however, it appears

they are good in langour & disorders of the head.

Stoeches Arabic & Ditany of Crete are natives of the southern climates & cannot be raised in the northern ones.

Calamint is but a weak stimulant.

Hyson, Ground Ivy & Pennyroyal are reck:oned Pectorals but their effects seem but tri:fling this way, Ground Ivy is the best in pul:monic complaints Hyson nearly like it.

Pennyroyal has been reckoned a powerful me:nagogue & antispasmodic & it certainly is a good menagogue if the obstructions proceed from spasms, it has also some alexiphar:mic & pectoral qualities & said to have cured the Chin Cough. it agrees with the mint in Genus.

Of Mint we have set down the Common mint the peppermint, & the Catmint or Catnep.

that Blisters are useful if applied 24 hours after the
first attack of an inflamatory fever, but a Vomit must
be previously exhibited. Blisters are seldom of service
if ~~exhibited~~ neglected for the first two or three days. If
they are applied 24 hours before the spasm is formed
they may prevent its accession - afterwards they are
not of service. When there is a colliquative tend-
ency, & an increased sensibility of the Nervous system
Blisters are of no service even if the pulse is low.

Peppr Mint is the Strongest it contains ~~a~~
very active & lively principles, giving a glowing
warmth through the whole system. A distilled wa-
-ter however is reckoned good in fevers.

Catmint agrees in virtue with the preceding
but it is weaker, it has be reckoned abtivenereal
& to prevent Nocturnal Pollution.

Herb Mastick, Summer Savory, Wild Thyme
& Thyme cause an equal warmth & are equally
Stimulating through the whole system, Time
gives a good flavor to Tea.

Sage, mall germander & Germander follow
next. Sage causes a small sweat used in
fevers but if too much used its said to be hurtf-
-ul to the Eyes.

Germander is said to be good in gouty pains.

2 Umbellata these do not all agree in medi-
-cinal virtues as some of them have an acrid poisi-
-nous quality; the seeds of the chief of this order
are used. the seeds of the Coriander are aromatic
but the plant is fœtid.

Fennel, angelica, Lovage, &c: have a large quan-
-tity of an aromatic juice, their seed are Car-
-minative, Stomachic & Dissolve conjections,
hence they are good in Colics & Headachs
& flatulent Diseases, they might very well
be substituted in the room of the foreign
aromatics, they are good in the flatulency's
of Children from the redundancy of acid in
the Stomach they are said to be Diuretic & Pec-
-toral but these qualities may be doubpted.

Aniseed gives a flavor to milk & hence reckoned to
be pectoral & Diuretic as most other Aromatics.

Dill has a rank scented smell is reckoned Antispasmodic

3 Siliquosa this is a natural Order agreeing
all in medicinal qualities, they are very acrid but their
acrimony is dissipated by boiling. they are very active
Stimulants hence they are good in Paralysis & other
Debilities of the nervous System.

Mustard seed effects the Stomach when first used
& if used too long it grows insensible in the Stomach &
thus looses its effects when it should be disused for a
time

Horseradish is so acrid as to blister the Skin if long applied thereto & is effectual in weakness of the Nerves, its active parts is very Volatile, hence it must be used fresh, & its qualities extracted by close infusion & corked up tight in Small Vials if kept any time. X

Mustardseed helps Digestion & is carminative in Small Doses but in large Doses it proves Emetic, hence if we want it not to vomit its best given without breaking the seeds, that its active parts may not all be extracted before it gets into the Intestines, a spoonfull of it taken night & morning is good in habetual Costiveness in less doses it proves Diuretic & Sudorific.

Many belonging to this class are powerfull antiscorbutics their expresed juice being the best for that intent & obtaind from those substances which have an Acid joined with their Stimulating qualities such as the Scurvy grass they are said to be pectoral if so it is in Consequence of

Diaphoretic quality there being so near a parity between the Skin & Lungs as in the Diaphoretic & Diuretic quality of Substances. In syrups they are very good in hoarseness to answer w.ch end the Syrup should be propogated from the Oesophagus to the adjacent Larynx. In France the Singers use it to clear their voices particularly the Eruca which with them has got the name of the Singer plant. they are all alike differing only in the degree of their Acrimony having no other sensible qualities.

Mustard seed among the seeds; Horseradish amongst the roots; & Scurvy grass amongst the leaves, are most in use.

Shepherds Purse has been recommended as an astringent in Hemorrhages but its effects are trifling.

The Expressed Oil of these is mild & bland the acrid & Stimulating quality residing in their essential oils.

The Syrup of horse radish is best made by scraping the fresh root adding a little water thereto then digesting it in Balnio Close sometimes after that squeeze out the juice through a Strainer adding a Sufficient quantity of Sugar thereto then corking it up tight for use.

4 Alliaceæ these have their acrimony dissipated by boiling w.ch is however less volatile than those of the Seliquosæ they require nearly the same treatment & have the same virtues of being Diaphoretic Diuretic & Pectoral, they should be given fresh, their Syrup has the qualities of those in the preceeding order; Garlic has the strongest odor of any of this Order. X

5 Coniferæ of w.ch we shall set down three the Fir pine & Juniper these agree in botanical order & medicinal qualities, but this does not hold throughout the whole order, their virtue resides in their resinous parts

& is nearly alike in all.

& Balsamica, these are of a middle consistance between that of raisens & Oils as the Terebinth & Balsams of Copivi, Tolu, Peru & Gilead.

Balsam Copivi is reckoned a Cure for the Colica Pictonum or Dry Belly ach.

Terebinth ℞ is reckoned a mild Stimulant & very good in Clysters. They are all Diuretick & have an acid Salt like that of Benzoin in them they are also reckoned Hepatritic but if there is an Inflamation of the Kidneys they are hurtful by their heating quality; too promiscously used in disorders of the breast they prove pernitious. Boerhaave cautions about the use of them in a Phthysis: they have been found to do good in a Sciatics Lombago &c: their virtues resides in their essential oils Bals: Copivæ is the Strongest as it Contains the most Essential oil: they are prehaps a little Different as their odor is very Different.

Opobalsam or balm of Gilead is seldom met with pure, most of the balsams are dif: ficult of solution especially Terebinth: &c. I have known to remain a longwhile undissolved in the Stomach, hence a decoction of the Tops have been prefered by some, & they are certainly professed of great virtues.

Juniper Berries made into a Tea has been found to cure the Gleet.

Gum Guaiacum is a good alterative & Stimulant & may be given in powder or Tincture

Liquid Styrax I mention this only out of Compliments to the dispensatories: it is scarcely or never met with pure in the Shops, it partakes of the nature of the balsams but in a Low degree.

Myrrh is a Common medicine but its virtues however is not truly ascertained. it gently Stimulates the prima viæ & mixed with Aloes proves a gentle Laxative & also produces heat & sweat

It has been esteemed Emmenagoge & is an Ingredient in the Gum Pill, but its virtues this way are not very great. ✕

The following three woods are mostly used in decoctions.

Lign: Guaiacum is a principle ingredient in the Decoction of the woods it's been found to have good effects in the Lues Venerea but not powerful enough to cure it alone

Sassafras is a warm Aromatic containing a very heavy oil by its Stimulating the System it proves Diaphoretic. ✕

Yellow Saunders its virtues are less than that of Sassafras Vc. is extracted by Spirit it is used more for its elegant Color particularly the red Saunders than for any medicinal qualities.

Sarsaparilla that Vc. is kept in the Shops appears to have very little Strength, its a principle Ingredient in the Lisbon Diet Drink so much famed of Late for its virtues in curing the venereal Disease D. Lordyce in the Vol: of the

Medical Essays of London relates the cure of several persons of the venereal disease by the use of it but perhaps this was oweing to the mercury they had before taken however it ought to be tryed by Practitioners: I think the common decoction of Sarsaparilla is much too weak. X

Contrayerva the root is used it has some degra of acrimony its Odor is weak it is reckoned by most Alexipharmic hence given in Low Fevers, but if has any efficacy it can do no good in the small doses of a grain or two as it is commonly given, since a drachm or more will have no great effect upon the body.

(5) Aromatics these are all united by sensible qualities they have a fragrant Smell an agreeable taste & contain a very heavy spencial Oil growing chiefly on the Toried Zone, the first 6 in the Catalogue is preferable to the others, they all Stimulate help diz gestion, & create an appetite, they are hurtful in all inflamatory Cases by their heating & Stimulating qualities, joined with bitters they have been found to have ga

effects in Cold Diseases & intermittent Fevers; they are used in Diet as Condiment from their agreeable

Aneroma Cortex Winteranus or Canella alba & Ginger are less fragrant than the others, & Pepper has the least Odor, but is the most Acrid; hence it appears how little Judgement can be formed of the virtues of any Substance by their Odor, the Taste being much more certain but even this is falacious many times, particularly in mercury wch has no acrid Taste, But yet is Corrosive.

The Essential Oil of these Aromatics is less acrid than they are in Substance.

Cebub, Cardamon, & grains of paradise are less aromatic than many others.

Galangal has very little virtues.

Snakeroot contains but very little Essential oil this with the Contrayerva is the only simples employed at present in the cure of Fevers D. Pringle says that snakeroot is antiseptic & he recommends it in Fevers.

Zedoary has an antispasmodic quality joined with an aneroma.

Lilly of the Valley is an instance of the bad effects we may accrue by admitting substances into medicine only by their odor as this plant is possessed of a poisinous acrid quality.

Gensang is a weak acrid Aromatic, is a very good Masticatory, but it is not possessed of much virtue.

Cascarilla was much used in germany but is now fallen into disrepute it has a acrid poisinous qualities, apt to heat irritate & cause a copious Discharge of sweat it is somewhat Styptic. Dr. Stahl recommends it as equal to the Bark in curing intermittents. The French use it in the cure of Dysenteries.

Aspalathum & Rhodium are more used by perfumes than Medicines.

Benzoin & Storax may be sublimed in flowers they give a good Odor, It is said the Gum of Turpentine will give flowers like the Benzoin, they are said to be pectorals but the use of Stimulating pectorals is doubtfull, their Salts are Diuretic & Diaphoretic

(i) Amara Calida these are not simple bitter but are Stimulating too they Check the acetous fermentation

& Diff.r in aromatic quality they Stimulate the
Stomach & hence create an apetite with warm wa-
:ter they will cause vomiting, they Stimulate the
Intestines in a small degree much in the same m-
:anner as the bile does & hence prove gently purg-
:ative some of them are used as anthelmintics but
not always with success their efficacy in this re-
:spect seems to consist in their Stimulating Stomach
& Causing it to eject the worms & not by destroying
them. They Stimulate the Stomach & thus prove Di-
:uretic, & they are reckoned good in the Jaundice
in the Catalogue from Abrotanum to Tanacetum
inclusive belong to the Syngenesia Class of
Linnæus.

Abrotanum mas & foemina & Absynthium roma-
:n & Vulgare have a strong bitter, common wo-
:rmwood is the strongest bitter, the others have an
aromatic quality joined therewith.

The Absynthium of the Alps is used
as an anthelmintic.

Carduus Benedictus contains less oil than the preceeding it is a very pure bitter w.ch may be extracted by cold water.

Careline has an acrid root.

Chamomile has an acrid bitter odorous oil. it was used in the cure of intermittents before use of the Bark was known, in large doses it sometimes proves purgative: Simon Pauli says it deceti: ous contains a salt, w.ch is confirmed by Neuman.

Wild Chamomile Dr Langrish says is good in rheumatic pains producing Sweat.

Tem: Santonicum or wormseed is a strong bitter, it agrees nearly with the preceeding.

Tansy is antiseptic Aromatic & mild bitter.

Orange & Lemon Peel have their bitter contained in their Oil contrary to any of the above, they are acrid & Tonic. Curcisse apple is.

Gentian & Centuary minor are of the same Genus they are very good & agreeable bitters equal to any. Jesuits Bark its proper Name is China China It belong to the order of bitters having all the

178

the properties of a bitter, has an acrid Resin, is as-
:tringent, & proves purgative when given in large
doses like Rhubarb, its purgative quality overpow-
:ering its astringency. it is a powerful Remedy in
habetual Costiveness in a dose of 3i once a day,
(Females are most subject to Costiveness from a
weakness of the vis vitæ,) it cures intermittents
by strengthening the whole System.

## Leeture 13th.

There are many cautions necessary in exhi-
:biting the Bark; in the last stages of autum-
:nal Dysenteries it proves beneficial by its
astringent Tonic qualities, as these kind of Dy-
:senteries are often attended with a feverish
Diathesis; its powerful effects in stopping of
gangrenes & mortifications is well ascertained; Ga-
:ngrenes proceed either from Inflamation & Lent
:lacidity & weakness as in the Dropsy in this
Last case the Bark has a singular efficacy by
strengthing & bracing up the solid & causing a
cautable suppuration of the mortified part

180

but in inflamatory Gangrenes it is hurtful;
in intermittents it rectified excites heat, hos increa-
-ses the circulation, but proves a Tonic it is found to
efficacious in external ulcers & in the Small Pox
but there it should be used with caution for when
there is redness round the Pocs it indicates a degree
of Inflamation it must not be given, but in a lang-
-uid state it is very beneficial, in the secondary
fever when attended with a putrid Diathesis it may
be given, but it is often attended with too great a
degree of Inflamation; in a Phthisis Pulmonalis
its found to be not very serviceable, nor in a Hec-
-moptoe if attended with an inflamatory diathesis,
as is often the case; it is recommended by Dr Fordyce
& Dr Fothergill in scropulous cases, but these
seem to be beyond its reach to effect; Inspasms, as-
-thma, Hypochondriac & Hysteric cases it has som-
-times proved beneficial, & in most Periodic disea-
-ses; in the Chorea sancti vitæ the use of the bark
after sufficient evacuation is strongly recomm-
-ended by Sydenham; in the Chlorosis of Virgins

182

w.c is always attended with a langor Steel & the
the Bark has been found to have good effects, &
in Hemorrhages of the Uterus & Lace haletual
Hemoptoes it proves beneficial; Hallet recom-
:mends it in a Jaundice but I believe it will
have but little good effect.

as intermittents are apt to return after be-
:ing cured the bark ought to be taken freely
& for a long time after the Paroxysms have
ceased as a preventative, for relapses are comm:
:only more difficult to remove than the former,
& it ought to be used as a preservative in the
seasons of this disease. It is common not to give
it in the excess of the fit — It is best given in
substance its extracts are not so good as the
finest parts fly away, a watery menstruum
is better than a spiritous & Infusion better
than Decoction for by boiling its active part
is greatly dissipated.

It is found to have good effects in the Chin
Cough & if Children will not take it by the

1854

mouth it is found effectual in Clysters, In Infractions of the Lungs bleeding should be premised.

Calamus this is placed next to the Bark from its being esteemed good in Intermittents Dr Haller orders it in doses of ℈ij.

The three following belong to the Verticillata Class of Tournefort

Ground Pine this is good in the Gout & in Germany is used in the Cure of Intermittents.

Marrubium Album is esteemed Pectoral

Dictamus Albus is accounted cardiac & Uterine.

Hops is a very useful bitter Checks fermentations in Liquors & prevents an acetous fermentation therein it is a very grateful bitter gives a pleasant flavor to Ales, some Physicians Imagin ale produces calculi in the body but I think it more commonly proceeds from a disposition in the body.

March Trefoil is bitter & Antiscorbutic.

Thus we have finished all the amaracalida as they are called & it should be observed they are better when Dry than when Green, & they should be

given in Substance if we would expect any benefit from them, water extracts the strongest bitter from them but spirits the purest, Alkalies do nothing towards extracting their virtues, but heighten the Color of the Tincture.

(b) Amara Frigida these are very acrid but may be rendered mild by blanching, the first viz Cichory Dandelion, Endives, & Lettice, are of the Syngenesia Class of Linnaeus nearly of the same Virtues most of this Class being very acrid & Poison they are aperient open obstructions of viscera & in large doses prove Laxative.

Dandelion is aperitive Laxative & Diuretic

Fumitory is succulent is a sooty bitter aperient Laxative & good in the Hypochondria.

(c) Amara Acrida

Arum is very acrid when recent but loses its acrimony when Dry it stimulates is Laxative & Diuretic

Euphorbium is very acrid & Stimulating is Laxative & is a powerful Stimulatory scarcely used except externally to Cleanse ulcers & carious Bones.

1856

Masterwort is acrid & Laxative.

Iris purpurea & florentine are acred when recent florentine Iris is a remarkable Hydrogoge Purge in the Dropsy, 50 gutts of the juice of the recent vegetable will Purge. As most in this genus their is a great diversity of Species different in virtues, this species we are speaking of is very acrid.

Pyrethrum, this belongs to the Syngenesia Class of Linnaus is very acrid so as to raise blisters on the Skin it is sometimes used for the Cure of the Tooth Ach.

The Lesser Leek is Emetic.

Staves Agria is very acrid it kills Bugs of Same & Oil we shall speak hereafter.

## & Animalibus

Cantharides are very powerful Stimulants applied externally the excite heat & raise blisters, given internally they are very apt to effect the

urinary passages. why they should effect these parts before the Stomach seems a little uncommon & prehaps may arise from their having a very highly concentrated salt w.ch is not disengaged before the arrive near the Kidneys & prehaps there is an allective attraction of the same to those parts. to prevent this bad effect large draughts of Barley water Flaxseed Tea or any other Demulcent should be taken freely: they are sometimes given in small doses as a Stimulant to promote Labour, & as a Diuretic in Dropsies & Nephritics, they will sometimes cure the Gleet by inflaming the parts & suppressing the running they have also been given in the Fluor Albus for the same purpose, as all other Diuretics they are Diaphoretic & D.r Mead recommends them in the Lepra but as this disease is wholly topical & does not appear to effect the whole mass of blood external applications are more proper the best manner of giving them is in Tincture beginning with small doses of 30 or 60 gutt.: & gradually encreasing the same.

Millepedes is inferior to Canthurides they are but moderately Stimulating.

Cochinella this is now well known to be an Insect they have but little virtues as a medicine & Chiefly used for the sake of their elegant Color

under the Class of Stimulantia may be reckoned the Nutrientia, Adstringentia, Sedativa, Antispasmodica, alkalina & Sales Nutri.

# Class 5. Sedativa.

## Lect: 14.th

Sedatives are such Medicines as diminish the force of the System & the moveing fibres acting upon the Solida viva. Venesection is sometimes a Sedative by its lessening the quantity of blood & consequently the force of the Solids. As it seems difficult to know whether Sedatives act immediately or mediately upon the Nervous System we will endeavour to explain a little their acting. it is the common opinion that the brain is the Sensorium Commune from wch sense & motion is communicated to all the parts of the body: Some have imagined that Sedatives act by oppressing the brain & preventing the Secretion of Animal Spirits, others imagin that they coagulate the blood, but it must be that Sedatives act immediately upon the Nerves, as is evident from their quick action upon the part to wch they are applied; when internally they act primarily upon the Stomach & on the rest of the System by the Sympathy of parts.

The heart of a living animal being cut out it

will continue its motion sometime out of the body according to the experiments of Dr. Whytt. this motion is immediately suppressed by Sedatives.

Sedatives act upon the Sensorium Commune two ways 1st by diminishing the Secretion of the Nervous fluid 2d by destroying the mobility of the fibres, thus large doses of Sedatives are apt to cause a Paralysis of the lower Extremeties & the inequality of their acting depend upon the more or less irritability of the fibres — That irritation does not alway increase the Secretions is evident in fevers, the action of Sedatives is promoted by keeping all things quiet & Still & allowing the patient to Sleep. the animal Spirits being reckoned less agitated during Sleep than vigility — Dreams are a Ruminiscence of the mind of things done the Day before or some other time, or they proceed from some oppresion, obstruction or irregulation of the fluids during Sleep. as a person having an oppresion at his heart Dreams that some heavy person is setting upon his breast as in an Ephialtes a Dry person will Dream of Drink &c.

all the parts of the body are not alway asleep at the
same time as is evident in those called the Somniambuli
w.ch sometimes do things they could not do if awake, this
is accounted for by supposing the mind is more in=
tent upon the act when waking, when it apt to be
taken of by every accident that occurs &c: Dreams
are mostly incoherent, a Delirium being much the
same as a Dream.

Most of the Secretions are lessened in the time of Sl=
=eping, as the action of the Stomach, Intestines, the
Secretion of the Bile & Pancreatic Juices & Saliva
as is evident from the Stopping & Salivation in the
time of Sleeping, on the Contrary constant Stimu=
=lus keepsup the Secretion as in a Stone in the bla=
=dder w.ch if it causes too much irritation opium
may be used for taking off the Spasm caused by
the irritation of the Stone by w.ch means the passage
being dilated if the Stone is not large it is often
discharged the next time of making water. Opium
does not stop the regular Discharge of the Menses or
Lochia I think its oweing to a Diminution of the mo=

170

tion of the Heart that people are more subject to
catch cold when asleep than when awake.

In the Catalogue from 1 to 2 are Sedatives Strict=
=ly so called from thence to the End they are not so
but properly enough may be called Refrigerants
acting as a refrigerant first & after that with a Se=
=dative quality.

Of the Genus of Rhoades we have only set
down one & that the most commonest in use of any
viz: the Poppy this is properly a Sedative; Opi=
=um is made of the Juice of it, this is a very power=
=ful medicine vide D^r Alston in the medical Essays
of Edenbargh on opium, its effects Seem to be various
at first, after taking it there is an increase of the Pulse
then a Calmness & Serenity of the mind with a flush=
=ing in the face, after that a Sensible irritability &
irrasiobility & lastly profuse sleep, upon waking
the body is Cold languid & weak, thus we see their
is a mixt of Stimulating & Sedative quality in
Opium & it is the combination of them that causes
Delirium the first irritating & the latter causing a suppression
of the nervous fluid.

Opium is a very good Cordial but yet it is improper in inflamations: As to its Anodyne effects we must first Obs=erve that pain is of three kinds 1st Som Distention. 2d Spasm. & 3d Irritation, of the first kind is the Pleurisy of the Second the Cholic, & of the third a Cancer or any other the Like thing. In the first kind of Pain opium does no good except giving a little Transcient ease after wch the pain returns with more violence, most acute diseases are owing to the Same Cause, & thence opium is not good in them; The Toothach is mostly of the Rheumatic kind in wch opium is unserviceable but if the Toothach arises from a Spasm or irritation it will have good effects.

The Gout often arises from a Distention & Inflam=mation & hence opium should not be given either in the begining of the Disease or of a Paroxysm, at wch times Strong Drink has been found to do more good by increas=ing perspiration.

Opium does good in Suppurations & in the Small Pox in the Latter Case costiveness must be avoided by Lenitives however during the Eruption & in the Se=condary Fever Opium must not be given, but in the Secondary Fever Evacuations are to be made.

In Spasms Opium is a universal remedy perfect=
=ly removing the Disease is evident in the Emprosthotonos
& Opisthotonos diseases subject to young people in the
hot Climates w.c it will remove, it removes the spasms
of the alimentary Canal & hence cures the Cholic
but as many other thing may cause a Colic besides Sp=
=asm, as Hysteric & hypochondriac affections, Hemorrho=
=ids, suppression of the mensis, Hernias, Nephritis, Poisons,
Irritation from extraneous bodies, as Worms in the
Intestines, Crudities Hardned faces, & Constipation
of the Intestines, & lastly Inflamation, in all these
Cases except the four last Opium is serviceable as
also in Diarrhea, Dysenteries after gentle Evacu=
=ation. D.r Cadwallader orders Opium in the Dry bel=
=ly ach with Crem: Tartar; in the Iliac Passion opium
has procured stools when purges would not by rem=
=oving the Spasm; given with purges simulet semel
even in volvulus it has done good, De Haen
recommends it in the Colica Pictonium.

Opium removes Spasms of the uterus & Suppr=
=ession of the mensis from the same cause, it rem=
=oves false travelling pains & promotes true ones,

it removes after pains & helps the discharge of the Lochia in the Icterus from an Obstruction of the Ductus Cholodochus it proves beneficial.

## Lecture 15.th 27 March 1766.

The Heart is sometimes tho' rarely subject to Spasms & they are only cured by Opium, disor=ders of the Lungs if attended with any degree of Inflamation, Opium is improper, Asthma's that are purely Spasmodic Opium relieves but if they are attended with infractions of the Lungs it proves hurtful, in Spasmodical disorders of the Head it is beneficial if they are not attended with inflamation, these Spasmodic dis=orders of the Head are either Idiopathic or Sy=mpathic from a disordered Stomach or other part, in the first case Opium is good but in the latter case if the disorder is in the Stomach Vomits & Stomachics are of more Service.

The Clavus is a spasm of the part & mostly Idio=pathic in w.ch case opium removes the disorder.

206

Spasms of any part from an injury done to the Nerves by a wound or fracture as in Lacked Jaw Opium is very good.

3. In pains from irritation Opium proves service-able as in a Cancer, but pains from a Luxation Contusion or Wound being mostly attended with Inflamation it should not be given, some recommend giving it just before performing an Operation, it is good in all immoderate discharges of any kind. A French Academist recommends it in Intermittents Fevers, but in this case it must be used with caution & given so as to operate just before the fit comes on; Joined with the Bark it has been given with success by its removing the spasms common in the Paroxysms of these fevers.

In Continual fevers if of the Inflamatory kind Opium proves prejudicial, but if they are of the low nervous kind it is administred with success for by its Stimulus it raises the Circulation & by its sedative quality it removes the Spasms; Opium is found to remove violent Spasms as effectually as Camphor Musk or any other Medicine known.

Catarrhs are an increased discharge of mucus from any part as the Schniderean membrane of the nose, the fauces &c often very thin & acrid, after bleeding Opium is found very service-able by brineing on a Diaphoresis & correcting the acrimony.

Vomiting if proceeding from irritation Opium does good or if it proceeds from a Spasm or is Sympathetic.

For Diarrheas & Dysenteries Opium is serviceable in the latter of the two there is often an inflamatory Diathesis & therefore it must not be given untill sufficient evacuation is made by bleeding Vomit & Stool.

In a Tenesmus Opium may be given as a palliative in the Evening to prevent the patient from getting up so often in the night by wc means they get cold stop per-spiration & Cause the humors to fall upon the Bowels.

In Evacuations of blood: of this there is but one th: at is natural viz: the Menses in women these are sometimes immoderate owing to three Causes 1st Inflamation 2d Spasm 3d Debility of the uterine Vessels, in the first case Opium is improper but in the two latter Cases its exhibited with good succ-ess, but if too long used it may Cause a weakness

in the fibres of the Uterus & thence subject it to a return of Spasm.

Symptoms of Abortion are commonly relieved by bleeding Opium here also may do good: in habitual Abortions Opium will sometimes prevent it when all other medicines fail, but in the common symptoms of pregnancy as vomiting &c must be given with caution.

Hemorrhages, if attended with an Inflamation Opium must not be given; In the Measles Opium is good this distemper is by no means like the Small Pox, as not tending to ~~putrefaction~~ suppuration.

With regard to the pharmaceutic treatment of Opium they are all nearly alike in virtue, both Spirituus & watery Menstruums extract its virtues.

(6) Umbellatæ all this order should be used with caution as they have poisonous qualities joined with their medicinal.

Hemlock has great encomiums bestow'd on it by Dr. Stork who says it will cure Cancers, Cataracts & Venereal diseases without any sensible Operation, or without increasing any one secretion, but I believe most

212

who have used it either here or in great britain, find that it operates by stool Urine & Sweat, it also cau:ses Tremors Vertigo &c. wch may be removed by Valerian in Cancers it first Changes the blds & then alters the fluids & thus Sometimes proves effectual in curing them, but not always, I beleive there was never was many confirmed Cataracts cured by it as they seim to be beyond the use of medicines, Dr Stork also rec:ommends it in Strancous swellings & in a scrophula, but a true scrophula was scarcely ever cured only by the use of it, yet we ought not to dispair of its medicinal virtues prehaps its not been taken at a right time or not rightly prepared may be the reason why it does not have no more good effects,

Water Hemlock this is a stronger poison then the Common hemlock but prehaps it might ma:ke as good a medicine if rightly administred.

(c) Luridce of wch we have set down 6 they all nearly agree in their narcotic & sedative qualli:ties.

& therefore we shall only take notice of three viz: Bellado-
:onna, Hyosciamus & Nicotiana.

Belladonna or Solanum Lethale is of a poisinous quality but may be made a good medicine. Mr. Ray says it will remove scirrhus Tumors & cure Cancers. In the Edenburgh Hospital, there was a woman & her son who had each of them a cancerous Ulcer on the Leg they first began with the boy giving him g.ss to g.ss daily graudually increas'd after some time he felt a pain in the Tonkes & a difficulty of Swallowing & his Leg hea-
:led up, they then left off giving him any of it for some time when the disorder in his throat left him & his leg broke out again, upon w.ch the same medicine was again ordered for him & after taking it again a little time his Leg again healed up, but he was taken with a vo-
:miting of blood by w.ch he died; the mother took the same medicine but with more Caution, & was relie-
:ved thereby but not entirely cured. these two inst-
:ances prove the Belladonna is a very powerful medic-
:ine.

Hyosciamus Henbane intoxicates & it is a pow-
:erful Glyster has been recommended in Cataracts Hypop-
:toes &c. externally its virtues are similar to that of the cicuta.

Nicotiana belongs properly to this order from its narco=
=tic qualities, its a very good & powerful Stimulatory if not
too frequently used, as a Masticatory or Smoaked it does hurt
by discharging too much of the Saliva wch was intended for di=
=gestion, its a very powerful Emetic operating in doses
of 3fs or 3i. The smoak of Tobacco injected as a Clyster
proves beneficial in incarcerated Hernias, its active
parts are dispipated by boiling, hence some use it in
a syrup as a Pectoral, made into an unguent & app=
=lied externally it dissolves scirrhi &c.

2. Lettice & Lauro Cerasus vid. L. Brown in
the Philisophocal Transactions.

Laurel the virtues of this resides in the Bark
in moderate doses it may be given with success.

Bay Berries are narcotic, the leaves bruised & app
=lied externally are said to dissolve white Swellings.

Coffee & Tea, much have been said of these substan=
=ces, but nothing determined; those whose fibres are strong
these may do good, but in Lax fibres the warm water may
do hurt those properties of promoting digestion relieving

conditics &c: the warm water itself may do, whereas those pro:perties have been attributed to these substances, their eff:ects may be different in different constitutions being serviceable to some & hurtful to others.

Coffee is found to have the least effect of the two, yet tho drunk in the Evening, causes gouty pains in the Stomach of those subject thereto. upon the whole it seems that too frequent use renders their effects less perceptable; it seems as if they were too stimu:lating to be used in Diet & therefore would make very good medicines, they are properly ranked among sedatives by their weakning the nerves

Saffron

Nymphea have been reckoned anodyne &

Hypnotic.

(e) Wine & Alcohol; what has been said of Opium may be applied to these substances

Acids destroys the mobility of the parts to which they are applied.

Neutral Salts

Emollients act by relaxing the parts.

Lecture 16th

# Class 6th Antispasmodica.

Antispasmodics are such medicines as allay the irregular motions in the Human body, they might be divided into those that act by a stimulus & those that act by a Sedative quality.

## of Fossils

Ambergrease belongs to the fossil kingdom it is an odorous gummy substance used more as a perfume than as a medicine.

Amber is a pellucid substance its salt we shall speak of hereafter, its oil is pungent & odorous, & therefore good to be held to the nose of a person in fits to bring him to.

Petroleum is Antispasmodic Pectoral, & good in Obstructed menses from a spasm the Common Petroleum is often adulterated with two thirds its quantity of Oil of Turpentine, it has been given in agues, & is sometimes applied to the feet & hands in very cold weather to prevent the frost from hurting them it is also sometimes

applied to Erysipelas, Bedsores, Swellings & Parylitic
cases in the Last of wch it often does good by its pene
:trating quality if also rubbed on the Spine.

## Of Vegetables

The Artimesia Cardiaca Matricana &c: belong to the
Verticillata class.

(a) Herba Foetida the virtues of these depend upon
their Essential oil they remove spasms Hysteria com
:plaints &c:

Aristolochia is good in the Gout.

Atriplex Olida is a very good Hysteric.

Ruta is good in hysteric complaints & in the Epilepsy given
by way of Clyster it destroys the Ascarides.

Savin its Essential Oil is very acrid & stimulating it is
said to destroy worms by being rubbed externally on the belly.

(b) Gumma Foetida the virtues of these gums resides
in their Essential Oil which rises in Distillation either wth wa=
:ter or Spirits those wch have most of this Essential oil are the
most powerful Antispasmodics as Asa foetida they are all
stimulating & used sometimes by some people as Condaments,
some of them has been used as Anthelmintics particularly

x Camphor is a warm diaphoretic & antiseptic: it does not however heat the constitution so much as might it be expected from its hot pungent taste

Neumanns C:

asafoetida they are also Diuretic & Diaphoretic some of them as the Ammoniac & asafoetida are Pectoral they are powerful Emmenagogues & are supposed to act upon the Uterus by Stimulating the same causing turgescency of the Vessels & an increase of the blood circulation in those parts, the Gum Pills given 2 or 3 of them at 3 times a day or pro re nata proves powerful Emmenegoges & antihysterics.

℞ Camphora is a very strong substance & given in too large doses may prove poison, it is a gummy substance soluble in alcohol & unites with acids it is got from a species of the Laurus or Lauro cerasus Margena of Barcelona tryed it upon beasts & it proved poison to them, its sensible qualities are, it is very acrid to the taste & of a strong smell, hence it appears to be a very powerful Stimulus, disputes have arisen whether Camphor is of a hot or cold nature, but it is now pretty well agreed upon that it is of a cooling nature, it is found to do good Hypochondriack & Hysteriac cases, in the Philosophical Transactions we have an account of Camphor given every day 3ß cured

the Maria Hoffman says it will cure the Lues Venerea but perhaps it only allays the inflamation of the Gonorrhea but it also perhaps weaken the venered Vines as it found good in Nocturnal Pollution for w.c the Cold Bath & Opium are very good also

Camphor has been reckoned sudorific but its found to have but little of that quality. D.r Pringle says its a powerful Antiseptic, but in fine we must impute its principel effects to its action on the Stomach.

℞ Castamuniar is a weak Antispasmodic & Sudorific.

Peonia its virtues are not well ascertained it has been reckoned good in Epilepsy.

Valerian is good in Epilepsy. I have known ℥ss given & it had but very little effect. tho its generally given in the small dose of ℈j twice a day its said to be gently purgative it has a strong odor & sweet taste & is also Diuretic, it is the basis of the Cephalic powder in Edenburgh Dispensatory.

Empyreumatic Oils are nearly like that of Camphor.

228

Liquid Æther is inflamable free from any acrimony it is a very powerful Antispasmodic in pains of the head & teeth. its action is extremely quick & penetrating in inflamations it is cooling. Dr Hoofman diffused it in Spirit of wine & called it his Liquor Anodyn: Mineralis giving it very great encomiums.

Essential oils the foundation of these is a Spe:ritous Rector they grow thick by standing, they have mostly the Odor of the plant but not always all the ot:her sensible qualities of the plant, for the Oil of worm:wood is not bitter.

The Verticillate & Umbellate give an Essential oil similar to their substance, the Coniferæ & Aromatica have a stimulating oil distild waters are impregnated with these oils, Pepper Mint water is endued with the propes:ties of its oil & is Antispasmodic.

## Of Animals

Musk, its virtues depend upon the Essential oil it contains it is very odorous & volatile & a very pow:erful antispasmodic, in Spasms of the Stomach Hysteric & Hypochondriac affections, Subsultus Iliac Passion

& Colica Pictonium joined with Opium it is very effectual in a Tetanus & Rabies Canina it has good effects, in Lues it is used with great success particularly if attended with spasms subsultus Tendinum Tremors &c.

Musk is also found to have the best effect of any medicine in Maniac cases.

Libethum is chiefly used as a perfume.

Castor has an Essential oil its of a foetid smell but less odorous than Musk & a weaker antispasmodic we have two tinctures of it in the Shops a simple & a compound Alcohol is its best Menstruum.

Volatile alkaline Salts their virtue depend upon an oily part & pungent Odor, they are acrid to the taste have a quick penetrating action, & thence are antispasmodic & in Hypochondriac affections prove beneficial. They are supposed to be Alexipharmic as all alexipharmics are antispasmodic they are pectoral & good in Asthmas they were formerly reckoned to be Septic but Dr Pringle has proved by experiments that they are Antiseptic & he

Dear Miss

gave them in putrid fevers, the Caustic
Alkalis are very powerful Antispasmodics applied to
the nose only being similar to the Eau de Luce the
:y may all be taken internally if well diluted.

Soot has a native ammoniac a volatile alkali
& a Native Oil in it, hence its Antispasmodic virtues
its tincture however is nearly inert.

A Stringents by bracing up the flacidity of the
parts may remove Spasms.

If Spasms arise from an over distention of any
part Emollients may remove the same if they
arise from acrimony Demulcents will remove them.

---

Lecture 17th

## Class 7th Attenuantia.

The first of these we shall mention is water
& here we shall confine ourselves to its effects when tak=
:en internally, of its external effects we shall speak
hereafter.

Water taken into the Stomach cold proves a Stimul=
:ant & causes the contents of the Stomach & Intestines

quickly to pass off. hence it has very good effects when Drunk after a full meal, Chocolate often causes a sense of heaviness at the Stomach, which is relieved the best of any way by a Drink of Cold water. it has all the good effects of neutral Salts operating in the same manner they do; it is a Diaphoretic. in the Paroxysms of intermittents it raises a Sweat & carries off the Paroxysm; in Inflamatory cases as the angi= =na & Pleurisy Phrensy &c: it is hurtful, warm Diluents being much better; in the beginning of Fevers the vulgar Drink water wch has good effects.

Warm Water stimulates the Stomach & helps di= =gestion hence Tea or Coffee are beneficial after libe= =ral eating if not taken too free in wch case they ca= =use debility & relaxation, but in inflamatory cases warm water is beneficial also in arthritic & Rheuma= =tic complaints from tension.

In the Intestines warm water proves diluent dete= =rgent & Resolvent increasing the Peristaltic mot= =ion thereof & consequently the discharge of the faces, so that in the quantity of a Scotch pint equal to about two quarts it proves purgative, hence the purgative quality of most mineral waters may be deduced, more

than from the Glaubers salt it contains we is often very small in quantity.

Simple water is one of the safest purges that can be used, producing no bad effects & yet causing an Evacuation from the whole system, it cleanses & opens Obstructions of the Mysentery Glands & hence is good in the scrophiala, D. Ruffel recommends sea water as the most purgative water carries off all saline & putrid matter promotes Urine perspiration, & all the Secretions & Excretion & according to D. Hoffman comes nearest to a panacea of any medicine.

Alkalis act first upon the Stomach & next upon the whole System they dissolve coagulated by emph, they diffuse with the Serum & coagulated prove Diuretic & Diaphoretic.

Quicklime is a caustic substance & may be given in large doses, it is thought to dissolve the Stone.

Neutral Salts are but very little Attenuant & besides they are commonly given in too small doses to have much effect, they mix with the Serum & thence render it thin, & are good in Fevers. Nitre gives a very beautiful red color to beef.

Soap is composed of an Oil & an Alkali produces fluidity out of the body. If in the body in large qu: antities it is seen in the urine.

Anasarca arises from a defect of absorption in the body wch requirs a stimulus; hence Mercury & Cantharides prove attenuants by their stimulating & D. Alston took all his attenuants from the class of Stimulating medicines.

Dulcia as Sugar, Honey, Dates, Raisons, figs, Liquorice &c: with the Nutrientia & Emollientia we have spoke of before

---

## Class 9th Inspissantia

Having considered the fluids when affected with a lentor, we shall now consider them when in a too thin state.

The fluids may become too thin 1st by imbibing a too great quantity of fluids, tho' this very seldom happens as they are very subject to run off hence the body has been compared to a sieve they more commonly act by relaxing the fibres. 2. by a retention of some necessary secretion 3. from immoderate Hemorhages

4th from a diminition of Cohesion by putrefaction &c: as in the scurvey Cachexy &c: Acids of all kinds earthy an metallic Salts with alcohol are the chief that be=long to this class. but these alone cannot be employ=ed in a Sufficient quantity to have much effect. of Nu=trients & astringents we have already spoke & of De=mulcents we come Next to speak.

## Class 9th Demulcentia.

We come now to speak of Diseases arising from acri=mony. The humors in a natural state are very mild b=ut they may become acrid many ways wch is removed by Demulcents wch Sheath the acrid particles but do not change them all Oils & mucilaginous substances have this effect, but are most beneficial when joined together. the Serous part of the blood is the vehicle of Acrimony & with wch these substances easily mix, the Stomach is Subject to acrimony as is evident from the Heart=burn Dysentery &c: when it gets into the blood ves=sels it is not evident because of the <u>mucus</u> or mucus that lines the sides of those vessels, but when it gets into the excretory vessels it is evidently perceived as in the

mucus of the Bronchia causing a cough by its irritation the Fluor Albus Lochia & Catamenia are sometimes attended with acrimony & even hemorrhages from the uterus are sometimes caused by this acrimony in wc case Demulcents are very good. Sperma Ceti given to lying-in women has often very good effects.

(a) Asperifolia Comfrey is a very good Demulcent an extract from it is similar to Salop it is used sometimes instead of Mallows in Nephritic cases.

Dogs Tongue has been reckoned by some narcotic.

Pulmonaria.

(b) Semen Farinacea are Demulcent from their mucilaginous substance as is evident. Some of them are Diuretic.

(c) Dulcia these are good in Disorders of the breast they sheath acrimony especially in the Lungs & are very good pectorals.

(d) Gummia Mucilaginosa, the first of these mentioned in the Catalogue are the purest

Gum Akabac is a very fine demulcent I have given the quantity of a ℥j at a dose of it.

Starch is very good in Glysters.

Isinglass is an animal demulcent but should not be given in Fevers & other diseases inclining to putrefaction. Nutrients & Emollients we have taken notice of before. Sedatives by stopping the motion of the Vessels are Demulcent.

## Lecture 10th April 1st 1766
## Class 10th Antacida

Gentlemen

Having spoke of the animal fluids with respect to their consistance, we come now to speak of them with respect to mixture.

all our fluids are generated from aliments tho' we originally vegetables either immediately or by our feeding upon such animals as live upon vegetables, & as vegetables are of a different from our animal fluids, so they require to be changed in order to form them, wch changing is called Assumilation & is brought about by fermentation & mixture. The different Stages of fermentation are three viz:

P. Acescent 2d. a degree beyond acescency 3. a putrefactive fermentation.

A tendancy to acescency in the Stomach has generally been reckoned morbid but it is so far from being so when in due bounds that it is both natural & necessary. Air is sometimes in the body wc. in a moderate degree is necessary for Life & Heat are the two grand agents of fermentation. The most apparent fermentations are the vinous & Acetous, the former more mild, the Latter more violent & strong & when mixed with the Bile forms a tertium quid the cylous part of the mixture is recieved into the Lacteals by absorption or perhaps by elective attraction partly, & is carried into the mass of blood with which it is mixed, after which the more Saline & Serous parts pass off by urine & Sweat these three different Stages are distinguishable from each other.

A redundency of Acid is often found in the Stomach, but I believe a natural Acid was never discovered in the blood tho' Boerhaave in his aphorisms thinks there may be; an Alkali sometimes abounds in the body & these two species of acrimony are the only

one found in the body, & I believe acrimony is oftner reckoned to be the cause of Diseases than it really is yet many diseases do actually arise from acrimony as the Small Pox & all other contagious diseases.

I shall now consider acids only as being in the prime viæ in wch in too great quantities they produce flatulencies Gripings Diarrhead & Cholera Morbus, wch is caused by eating too great quantities of Sower fruits a weak Stomach &c. Medicines wch absorb this acid are of three kinds viz! absorbents, alkaline & Neutral Salts.

(a) Absorbents these are either fossils or animal Substances of fossils we have set down three the Limestone Chalk & Lonebinder wch are nearly alike in virtues the property of binding broken bones attributed to the last has no foundation that being entirely owing to nature.

Lapis Calcarius is the foundation of quicklime its but a poor Absorbent, Chalk is the best Absorbent we might have mentioned here Magnesia but it's no better than Chalk well perpared.

Animal Absorbents dissolve in acids forming a neutral Salt, they are all nearly alike in virtues, Dr Pringle says they are septic & therefore not to be given in putrid diseases.

Liquid shell has been reckoned Lithontriptic.

(6) Alkalis, the volatile alkali is too Stimulating to be used alone in a sufficient degree.

Calx viva is an Antacid externally it is astring-ent & internally it does good in Septritic cases.

Fixed Alkelis are either vegetable or Fossil, their virtues are nearly the Same externally they are deterg-ent & good in diseases of the Skin, internally they are absorbent & by Stimulating the Stomach they prove Diuretic Boerhaave says they make a good purgative.

Neutral Salts & Soap by decompounding in the first passages prove absorbents of acid.

Borax has no virtues above common neutral salts nor could I ever observe any good effects from it as a common-ogue. Soluble Tartar

Stimulantia Sedativa

---

## Class 11.th Antalkalina.

An alkali is the second species of acrimony. It but seldom occurs & that when the humors are in a putrifac-tive State, it is reckoned of two kinds the one Acute such as happens in Fevers, the other Chronic as in yl Scurvy.

1 Acids these are either vegetable or 2 fosil the vegeta-
:ble are either native or fermented, but we shall only
speak of them in general, externally they act as astr-
:ingents if they are properly diluted but in a concent-
:rated State they are so caustic as not only to eat away
flesh but also to corrode metals; internally in the
mouth they are astringent Sydenham used dilu-
:ted spirits of vitriol in an Angina. they stop a too
great flow of Saliva tho alum or Borax is better
used for that intent, in the Stomach the create an
appetite are Antiseptic. check the vinous & acetous
fermentation allay thirst & prove Sedative & astr-
:ingent & in consequence of their Stimulating the
Stomach they prove Diuretic & Diaphoretic but in
too great quantities they cause gripings spasms &c they
are apt to cause a cough by their Stimulating the Bro-
:nchia in passing it & therefore should be used with
caution in Hemoptoes.

Wine & Tar Water have an acid easily assimilated

2 fosil acids are the same with vegetable in their virt-
:ues but Stronger & more powerful.

Sedative Salt has been reckoned powerful it may do
good in a thin cough.

Salt of Amber has not much virtue & what it has depends upon
the oil it contains. Nutrientia.

## Class 12.th Antiseptic.

Antiseptics are such medicines as correct or prevent putrifaction on this head I shall refer you to D.r Pringle Boerhaave Cocx & M.r Bride.

Having thus considered such medicines as are called Alteratives we come now to speak of such as are called Evacuants these are supposed to act immediately on the fluids; all Evacuants are Stimulants some acting in general others upon particular Glands. The reason why different substances act upon different secretions is owing to their having a greater affinity & Elective attraction thereto.

---

## Class 13.th Errhina.

These are useful in Rheumatic & other disorders of the Head, & in some disorders of the Eyes; they virtues cannot be particularly ascertained & I have no observations to make on them seperately they are divided into fossil & vegetable & these again into Nitri or Acria the best is Sarrum & Tobacco; Snuff would prove a very good Medicine if not too frequently used by us it does hurt & therefore is just like Tea & Coffee.

---

## Class 14.th Sialagogæ Lect. 19.th

The Sialagogue Medicines are particular species of Stimulants employed to promote Saliva, & are pretty much the same as Errhina substances. They are either vegetable or fossil. The vegetable Sialagogues act externally only, that is by stimulating the Fauces when received into the mouth & thereby exciting a greater flow of Saliva: there is but very little difference between them only in Strength. The Nicotiana might be used to good purposes if it was less abused by too frequent chewing. The Pyrethrum is the safest & best & is very good to draw off Rheum in the tooth ach.

The only fossil substance belonging to this Class is the Hydrargyrus of w^c^ we shall here speak at large.

Many have supposed that the operation of this fossil upon the glands of the mouth is solely owing to its breaking down & dissolving the fluids of the body by a mechanic force, but this notion is not justly founded for no mixture in a moveing state can be dissolved by any pawer acting upon it, & the mercury is too much divided to act by its weight, for even gold itself may be reduced to so fine a powder as to swim upon the surface of the water, besides the doses of mercury are in no kind of proportion to the density of the blood & the resistance to be overcome, since two or 3 grains are sometimes sufficient to raise a Salivation.

Some have thought that the mercury acted from a septic property & that in induced a putrefaction into the blood, this they conclude from the Fœtor of breath persons under the operation of mercury are subject to. But the Stinking breath arises solely from those Ulcers in the mouth w.ch the Saliva occasions by its corroding the Faces & the quantity w.ch commonly raises a Salivation is much too small to bring on a putrefaction of the whole mass of blood. But what above all confirms us this cannot be the case is that blood drawn from a person in the heighth of Salivation has often had an inflamatory appearance. So that we must conclude the putrefaction is wholly Topical.

How then does Mercury act? only by Stimulating the Secretory Organs especially the Salivary Glands w.ch causes them to pour forth their contents: it may likewise act from its acrimony, & that mercury even in its most bland State possesses an acrimony we prove from patients always complaining of the taste of Copper in their mouths when they first begin to Spit.

Mercury when given in a large dose proves Emetic it is Sudorific, Apperient, Diuretic & Deobstruent. It never operates in its crude State but commonly passes off by Stool without having any effect unless it meets with an Acid in the Stomach tho' D.r Dover from the supposed doctrine of its acting by its momentum upon the fluids introduced

it into practice in its Crude state about thirty years a-
:go, & it was given with succes in diseases w.ch were cured
purely by the efforts of nature, he used it as a panacea
in all diseases. When it is minutely divided it proves
a powerful medicine. Mercury has sometimes been
used as an Anthelmintic when boiled in water, it is ha-
:rd to feel whether it communicates any virtue to
water, but this we know that it is a most power-
:ful Vermifuge when given in its fine preperations
All the preperations of Mercury with Sulpher
such as Athions mineral Cinnaber of Antimony &c
are inert & can be of no use unless the suffers a
Decomposition from meeting with an acid in the
prima via.

There are several preperations of mercury
from its being combined with different acids, when
united to the nitrous acid it is but weak, with the
vitriolic acid it is more powerful as the Turpeth
mineral which is much used as a vomit in the ve-
:nereal cases. but when combined with the muria-
:tic acid it is the most powerful of all as the Corro-
:sive Sublimate the operation & use of w.ch we are all
no doubt well acquainted.

Athiops mineral is least dangerous when given in
large doses because it operates quicker & is sooner discharg.

from the Bowells, eight grains of it has sometimes been given with safety.

Could mercury be determined towards the Surface of the body & produce the same good effects thro the pores of the Skin that it produces on the Salivary Glands it would be a much safer & more agreeable medicine some have imagined that its more acrid preparations when given in small doses would make it prove Diaphoretic especially if the patient was kept warm whilst using it, much more might be said of it, Calomel in a few grains is very beneficial in costiveness, it is commonly mixed with the other purgatives to quicken their operation.

In raising a Salivation we should begin with small doses of mercury & gradually increase them, so as to bring on the ptyalism slowly this is best brought about by unction according to D^r Astruc's manner.

## Class 15.th Expectorantia.

Expectorants are such medicines as cause a discharge of mucus from the Bronchia the Operation of pectorals is very uncertain; acrid substances are very often given in these cases but Boerhaves dissuades us from the use of them

use of them, if pectorals do any service in diseases of the
breast it must be from their Stimulating & antispasmo-
dic qualities such as Musk Camphor &c:

The four first in the Catalogue marked (a) are called
Verticillatæ their action depends upon their Essential Oil
Enula Campana has had many virtues ascribed to it,
& it is certainly a very good medicine it contains a resin
& an Oil on wch these virtues depend.

Iris when green is very acrid & heating inflamatory
medicine, but when dry may be given with safety.

Nicotiana is too acrid & narcotic to be given internally

Squills are very acrid Stimulating & Emetic they are
much in use they are good hydrogogues in a Dropsy, &
prove purgative pectoral & Diuretic, they are best fitt-
-ed for use when moderately dry at wch time they may
be rubbed to powder with Nitre.

Butter Burr & Coltsfoot are nearly alike in
virtues as they are of the same species the Coltsfoot
has been used in Scrophulous cases.

Cynoglossum

Benzoin & Storax Calamitis. The Benzoin
is given in Doses of a ℈ to ℥ss.

Tar has an Empyreumatic oil joined with it, it is nearly like turpentine, they have been reckoned pectoral but they seem to be too heating & are difficultly solu=ble in the Stomach especially Turpentine.

Soap must be given in large doses to have any effects.

Stimulantia of the Umbellatæ & Siliquosa are pectoral the verticillatæ are heating & Stimulating.

Antispasmodica Gums ammoniac & asafœtida are also pectoral.

---

## Class 16 Emetica

Emetics are such medicines as excite vomiting we shall therefore consider the effects of vomiting. the first effect of vomiting is to throw off the conten=ts of the Stomach the second is to increase the flo=w of Gastric Lymph from the Glands of the St=omach, the third is to agitate & compress the abd=ominal viscera & thereby increase all the secr=etions. In the act of vomiting the peristaltic motion of the Intestines is inverted & bile is of=ten thrown up, hence the good effects of vomits may be understood in a jaundice viz: by remove=ing the mucus & other matter that obstructs the opening

of the Ductus Choledochus & also by the violent agi=
tation, dislodge Stones in the biliary ducts & remove
other Obstructions. Vomiting by its convulsive agi=
tation causes agreat absorption, hence in Dropsies
great quantities of waters is often thrown up; they
prove also Diuretic during the act of vomiting the
pulse is oppress but immediately afterwards its
motion is increasd & the blood is sent to the Cir=
=cumference hence they prove Diaphoretic, remo=
=ve the Spasms of the Skin w.ch Stops perspiration &
are therefore good in the Begining of Fevers.

Vomits powerfully remove obstructions of the viscera
Scurvy &c. & I think they come nearest to a panacea
of any thing I know of, however vomits are contra=
=indicated in a putrid State of the body as in the Scurvy
as also in a Cahexy in all unequal Distributions of the
blood as in Hemorrhages & in congestions of the head as
in an Apoplexy Palsey &c.

Water might have been set down in the Catalogeue
as it will vomit particularly if impregnated with Cha=
=momile Horseradish &c.

Emetic Tartar is a very good Vomit.

Butter of Antymony & mercurius Vitæ are very acrid & Strong
Crocus of Antimony & Diaphoretic Antimony made in the com=

:mon way are inert Calce 2 parts Nitre & one part Antim:
:ony is almost inert & is the Same with Jarnedz fever powder
Glass of Antimony & crocus metallorum act irregular, they
are all Diuretic by Stimulating the Stomach.

---

## Lecture 20th April 3d 1766.

### Class 17th Cathartica.

Cathartics are such medicines as operate by Stool,
they Stimulate the Intestines & thereby increase the
Peristaltic motion of the Intestines & thus Hurry on
their Contents: their action is communicated to the Li-
:ver, Spleen, & to all the Alimentary Canal, by their
action they increase the power of absorption & hence
prove beneficial in Dropsies but if too long used they
weaken the habit: they do not drain of all the humors
from all the parts of the body for in the Lues Venerea
purges if ever so often repeated will not cure the same
without the use of mercury drastic purges in this case
do more hurt than good, Gentle Laxatives being the be-
:st. Cathartics by revulsion carry off oppressions
from the head & by causing a greater flow of blood
thro' the descending Aorta to the Pelvis they prove
beneficial in obstruction of the menses. Acids.

Tractus acido Dulcis viz: pruna, Cassia fistularis, Tamarinds &c:

Serum Lactis Buttermilk & Bland Oils are mild & Lenitive & all operate nearly alike to these may be added Honey Sugar Mannad &c:

Simple water has also a place here, it operates chiefly by its bulk & quantity.

Animal Oils act by lubricating & Softning the Faeces.

Venice Soap has its virtues as a purgative from its pure oil & fossil alkali its mild & uncertain in its Operation Owing prehaps to its decomposition in the Stomach dose ℈j to ℥ij.

Mustard Seed taken whole proves purgative ℥fs a day moderately opens the belly, the powder of it in large doses proves Emetick.

Sulphur is neither acrid nor heating yet it moderately evacuates & is good in Hemorrhoidal & uterine ~~Heamorrhages~~, if exposed to the air its Subject to a Slight decomposition & therefore should be close Stopt for use.

Roses Violets & Polypody are gentle Lascatives the two former are commonly given in form of a Syrup to young children as also the Oil of Almonds.

Amara Calida.

Bilis Animalium This was intended by nature to help Digestion & to continue the peristaltic motion of the Intestines & therefore when ever it is deficient the body grows Costive.

Balsamics are good in habetual Costiven=
=ess from Spasms as Terebinth Bals: Copiva & Gum
Guaiacum which are the best.

Of Saline Substances Tartar is the weakes Cathar=
=tic next to it is Alkalis. Neutral Salts Stimulate sufficiently without heating they cause copious evacuations & are similar in their effects to bleeding they are antiphlogistic but not good in Hypochon=
=driacs.

Soluble Tartar is of but little use.

Glaubers Salt & Sal Epsom
Magnesia Glaubers Salt is a moderate purgative.
Digestive Salt is a very good purgative.

Regenerated Tartar has been reckoned good in the Gout Rheumatism & other Chronics.

Those neutral Salts wch are made with the vitriolic acid are better than those made with the muriatic Acid those made with a vegetable acid are detergent & Diuretic

The following cathartics are more acrid.

The Antispasmodic foetid Gums are purgative & good in Obstructed menses.

Aloes is purgative Stomachic & Emmenegogue it is the basis of many compositions.

The following are Miscellaneous & very different in their manner of acting.

Agaric dose 9i to 3ij acts weakly but not mildly at present its not used internally but externally its used to Stop hemorrhages.

Rhubarb there are two sorts of it kept in the Shops, it is a mild & Safe Cathartic it also acts as an Astringent & leaves the body Costive hence it is good in Diarrhœas, Dysenteries & other Lax State of the bowels, purges best in Substance dose 3ss to 3j when toasted its less purgative & more Astringent.

Butchers Broom is good in Dropsies.

Sennæ is Stimulating & inflamatory & is best given in infusion

Black Hellebore is not so strong as has been thought.

The Six following viz: Mechoacan, Turpeth, Jalap, Scammony, Soldanella, & arthanita are species of the convalvulus Jalap is a very good purge, as is also Scammony when triturated with Sugar. its dose a H. the rest

are rarae ever used.

Gamboges a drastic purge & good Hydrogogue

## Of Lopid Cathartics.

Mercury & antimony we have already taken notice
of: Gold has its virtues but not as a medicine. the
Ancients however used it as a medicine, but I believe
had it any virtues it would be too often Adulterated, we
may say with Lodovici "It is better to make Gold out of
Medicines, than Medicines out of Gold"

Silver is too Drastic for internal use.

---

## Class 18th Diuretica

Diuretics do not alter the consistance of the fluids
but rather promotes the secretion of Serum, they act by
stimulus supposed to be a Saline matter having an elect-
ive attraction to the Glands of the Kidneys, their effects
in general are, that they discharge all Serous, Saline, & pu-
trid matter from the mass of blood.

Vegetable Diuretics belong chiefly to the Classes of
umbellata & Stellata.

Under the Class of Stimulantia the Verticillata are
the most Diuretic.

(c) Anomalous Diuretics as all the Syngenesia & Coniferæ
(d) Salts, the most powerful of these are the caustic fixed
alkalis saturated with an Acid.

## Class 19th Diaphoretica

Diaphoretics are of 2 kinds the first are such as increase perspiration the other such as produce sweat this last kind is more properly called Sudorifics.

Asafoetida according to Sanctorius is the very best Diaphoretic to encrease perspiration.

Diaphoretics are good in the Venereal Disease & in Fevers, & it is the only Secretion that will be increased merely by the increase of the bloods circulation independant of any Stimulus. Sudorifics relax & remove Spasms from the Skin, & should be given in the begining of Fevers; warmth greatly increases the action of Diaphoretics.

Diaphoretics act chiefly two ways 1st by their Antispasmodic & 2d by their Stimulating qualities, the Latter are chiefly employed in removing Spasms. Those marked with the Letter (S) are Stimulants & those marked with the Letter (A) are Antispasmodics.

---

## Class 20th Menagoga.

Menagogues are such medicines as promote the menstrual flux in this there is one thing different from all the other secretions viz: that it never must be increased beyond its natural quantity.

As there have been many Theories invented to explain

this evacuation, so their have been many medicines that have been appropriated to the removal of the disorders they are liable to. The Obstruction of the menses mostly happen from Spasms occasioned by Cold grief &c.

Medicines of this class are divided into 3 kinds viz: astringents Stimulants & Antispasmodics.

Of the first kind Iron & Peruvian bark are the best, of the second kind are Mercury, aloes, the foetid Gums, Musk, Castor, & Crocus, to these may be added such things as cause a greater flow of blood downwards as Semicupiums Venesection in the foot &c.

Of the Third kind the foetid Gums are also the Chief, & best given a little before the expected time of the return of the Menses

## Catalogus Materia Medica.

### Classis 1: Nutrientia.

| | |
|---|---|
| Ex Vegetabilibus | |
| 1 Fructus Acida Dulcis | |
| a Drupaces | |
| Cerasa Cherries | Malva Armeniaca, Apricots |
| | Malva Persica, Peeches |
| | b Pomacei |
| | Mala Hortensia, Apples. |
| | Pyra, Pears, |

c Hesperides
Aurantia Oranges
( d Senticosa

Fraga, Strawberries
Rubi Idai fructus, Raspberries

Uve vitis, Grapes
crispa. Gooseberries
Ribesia, Currants
Fructus siccati
Uvæ passæ, Rasons & Currants
Dactyli, Dates
Ficus, Figs
2 Fructus Cucurbilacia
Cucumeris, Cucumbers
Melones, Melons
Pepones, Pompions
3 Herbæ Oleraceæ
Herbæ Esculentæ
Atriplex, Orrach
Beta, Beets
Spinacia, spinach

Lactuca Agnina, Lambs Lettice
Siliquosa
Brassica, Cabbage
Nasturtium, Cresses
Semiflosculosa
Cicorum, Cichory
Dens Leonis, Dandelion
Endivia, Endive
Lactuca, Lettice
Umbellatæ
Celera, Celery
Asparagus, idem
Cinera, Artichoke
4 Fungi. Mushrooms
5 Radices Esculentæ
Raphanus, Radishes
Rapum, Turneps
Umbellatæ
Daucus, Carrots
Pastinaca, Parsnips
Sisarum, Skirrets
Semiflasculosæ

Scorzonera . viper grass
Tragopogon. Goats beard
Battatas, Potatoes
Porrum, Common Leeks
Cepa, Onions
Allium, Garlick.
f. Sem: Farinacea
Avena. * Sativa. Oats
Hordeum * vulgare. Barley
Secale. Rye
Milium. Millet
Triticum. Wheat.
Oryza * Sativa. Rice
Mayz * Zea. Indian Corn
Fagopyrum. Buch-Wheat
Medulla Farinosa
Palmæ Arbores f. farinifera
Sago, Sago
Radix Farinosa
Salep * Orchis * morio. Salep

Papilionacea
Legumina
Pisa * Sativa. Pease
Faba * vicia. Beans
Phaseoli ♂. Kidney Beans

Nuces Oleosæ
Amygdala dulc. Sweet Almonds
Avellanæ. Hazle nuts
+ Cocoa * Theobroma. Cocoa
+ Castanea * Fagus. Chesnuts
Juglans * Regia. Walnuts
Pistacia * vera Pistachio

Olivæ — Olives
& Potus fermentati
Cerevisia — Ale
Vinum — Wine
& Condimenta et Condita
Aromata
Sacharo — Sale.
vel aceto Condita

De Animalibus

a Lac Fœminæ
Asinæ
Equæ
Vaccæ
Ovis
Capræ

b Quadrupedia

Bos
Ovis
Capra
Cervus
Lepus - Hare & Rabbit
Sus — Hog

c Aves

1.st Gallinæ

Gallus, Gallinaceus. Cock & Hen
Meleagris Gallopavi. Turkey
Pavo Cristatus Peacock
Tetrao Perdix - Patridge
Coturnix - quail
- Lagopus - grouse
Tetrix, moorfowl
Tetrao Urogallus. Tormahant

2.d Anseres.

Anas Domestica. Tame Duck
Moschata - Muscovy Duck
Boschas Major. Wild Duck
Querquedula - Teal.
Anser Domesticus Tame goose
Ferus - Wild goose
Cygnus - Swan
Pelicanus Bassanus, Solon goose
Alca Tarda. Razor Eare

3 Grallæ

Ardea. Hern & Bittern
Scolopax, woodcock snipe & Curlew
Tringa, Lapwing or Grey Plover
Charadrius, Green Plover
Hæmatopus Peyat, or Sea pey
Fulica, Coot
Rallus, Rail or S.t Cemerake
Otis, Bustard or Goosetard

4.th Passeres

Columba Pidgeon.

Turdus, Thrush.
Alauda, Lark
Emberiza, Yellow hammer

&c

Pisces

Salmo Salar, Salmon.
Trutta, Trout
Hucho, Bull-Trout
Alpinus, Chare
Eperlanus, Smelt
Thymallus, Grayling S: Ombre
Cyprinus, Barbus, Barbill
Carpio, Carp
Gobio. Gudgeon
Tinca, Tench
Rutilus, Roach
Cephalus, Chub
Alburnus, Blake
Brama, Breame
Perca fluviatilis Perch
Gadus ~~Aglefinus~~, Haddoc
Merlangus, Whiting
Morhua, Cod
Molva, Ling

Anthelmentics, or such medicines as destroy worms in the human body. Tho' worms are no disease them-selves, yet they are the cause of many diseases in the system - They are always an object deserving attention, as they not only increase & multiply, but share the aliment taken into the body, & thus deprive it of its usual & proper nourishment. The manner worms are generated in the Body has afforded matter for various speculations & disputes - It is a common & vulgar opinion that worms & other insects are generated by putridity & filth, - they hold the same opinion with regard to the generation of worms within the human body; but sound Philosophy rejects this Idea, even the most insignificant insect was formed by the same laws of nature with the Whale or Elephant. It is probable that we take in their Eggs with our drinks or aliments; & what renders this opinion more certain is that the same species of worm is formed in some fish & in some waters, as in the human body. It is a well established fact that boiling water does not always kill worms, or their eggs, & it is therefore no wonder that complaints arising from worms are so common, since we may every day take in the eggs of worms, many thousand perhaps in a single glass of water. It may be imagined perhaps, what is the reason that every person is not subject to them? This is owing to the different habits, strength & constitutions of people. - Persons of weak & relaxed habits are apt to be affected with Worms, whilst others of a robust constitution & good

digestion are seldom troubled with them. Women & wealthy children with persons who lead a sedentary life are most liable to worms.

The human Species are particularly subject to 4 different kinds of worms - 1 Ascarides we are small white & pointed at both ends, like the maggots in cheese, - They are chiefly seated in the Rectum - They are quick in their motion & occasion an itching in the Anus. 2. The Lumbrici are round & resemble the common earth worm in shape, but are almost white - they are generally 4 or 5 Inches long - they occur in considerable numbers. 3. The Taenea or Tapeworm, so called from their being flat & resembling Tape - They are of great length & consist of a number of Articulations; when these articulations are seperate they are called Vermes cucurbitini or Gourd Worms; — each articulation has life, & the power of procreating. It is scarce credible to what length these worms will grow & extend themselves — instances have been recorded where they were an hundred yds long - They are in common from 10 to 100 feet long. As every articulation is a perfect worm, it is extremely difficult to expel it, if of any considerable size, for, if but one articulation remains, it will grow to a great size. The 4th Species is the Ascaris Lumbricoides - These are the common round worm pointed at both ends. Exclusively of these 4 Species, no doubt others occur; but as these are uncommon ones, & scarce ever distinguishable by symptoms, we shall not spend our time in treating of them. The diseases occasioned by worms are various & numberless - 1st They share the aliment taken into the body - hence the carnivorous appetite

& uneasiness of those afflicted with them, when without food
2dly They frequently form a Nidus, wch extends the intestines
in some parts, & occasions contractions in others - This is the
cause of flatulencies Cholics & it has been known to occasion
the Iliac Passion. 3d The filth they occasion in the Intes-
tines putrifies, & Diarrhoeas Dysenteries, & even fevers of
the malignant kind. 4. They penetrate thro the Intes-
tines into the Abdomen according to instances given by
Dr Haller. 5th By their motion & suction in the bowels
they produce various disorders - they move from one point to
another to procure food & nourishment, or to avoid what
is hurtful to 'em. — They are injured by salt, smoaked
meat, spirituous liquors, Mercury, Sugar, & other sweet substances
By their motion they irritate the inner coat of the stomach
& intestines & produce Spasms & Cholics - Distentions of the
Abdomen, Nausea & Vomiting - Gripings, Diarrhoeas, & at
other times costiveness, with a number of other complaints
in the bowels - and from the connection & sympathy of
the different parts, & sometimes the whole body, they affect
it in the most surprizing manner - they produce thus a
suppression of Urine - Palpitation of the heart - a difficulty
of swallowing - a loss of sight, singing in the ears - an im-
pediment in the voice, & sometimes a total loss of it. a Hic-
cough, dizziness, Convulsions, Epilepsy & even Apoplexy.
It is therefore said with justice that no Disease is so extraordi-
nary but what it may be occasioned by worms - And in-
deed if a patient is afflicted with any uncommon Disease
the first question we are to ask is, whether at any time
he has been troubled with worms. — In the next place
we are to inquire into the Symptoms in general by wch we may

know whether worms are present or not - & afterwards the particular signs by wch we may discover under what species the patient labors.

The symptoms by wch we judge worms are present are an unhealthy or sickly colour of the face & countenance a frequent change of colour from pale to red - a blue ring ~~under~~ round the eyes - an itching of the nose - frequent head aches, wch come on especially after meals - a quantity of watery saliva in the Mouth upon waking in the morning - a grinding or gratting of the teeth during sleep - an inclination to lie upon the stomach - the patients frequently found to sit upright in the bed during sleep - a motion & noise is perieved in the mouth during sleep - a thirst in the morning on waking - a noise in the ears - sometimes an accession to meat, but generally a voracious appetite - foetid breath - frequent faintings vomiting, dizziness, difficult breathing - pains in the belly - the belly swells - there is a rumbling noise in the Abdomen, with a suction & motion wch the patient perieves tho' they cannot describe - sometimes a diarrhoea, sometimes costiveness, & tho' the patient takes much nourishment yet he cannot thrive, & they are worse in the morning if they have taken no supper the night before - they are worse about the new & wane of the moon - they are often sensible of an irritation in the rectum wch frequently occasions fainting - they are frequently troubled with a Tenesmus - they are incapable of attending to business, tho' they are at a loss to tell what ails them - at times they cannot speak plain -

some become delirious. some are affected with convulsions without any apparent cause - if then are but slight. there is no appearance of froth in the mouth, otherwise they soon at the mouth - Some become rigid without sensation or motion they fall into a sleep & wake perfectly sensible, & complain of nothing but weakness - they recover slowly for many chiare they are frequently troubled with palpitations of the heart. It is not however to be supposed that all these symptoms will take place in the same person, it is sufficient to denote the presence of worms therefore if some or many of these symptoms occur in the same person. I was therefore right in my judgement, when I concluded that a Girl 10 years of age had worms because she eat a good deal & still continued lean, & was worse about the wane of the moon - Another child wasted away without any apparent cause, & did not complain of any thing in particular, & had no other symptoms of worms than that it was always found laying upon its belly in the morning (this is the most certain sign of the presence of worms) by a few doses of Calomel a small Tape worm came away. After we are once sure that worms are present, we ought next to enquire with what particular sort they are afflicted - The Tape worm occasions a suction in the Abdomen, & the patient perceives as if something alive was within him crawling along, & frequently voids by Stool Vermes cucurbitini. The presence of the round worm is known by pain & griping in the umbilical region. The ascarides occasion an irritation in the rectum & a Tenesmus.

Having thus enumerated the different species of worms

& y. symptoms by w. their presence may be known & by w. they may be distinguished from each other, we are next to enumerate the remedies that expel, or destroy y.m There are termed Anthelmentics w. are of 2 kinds 1. st such as by their immediate action upon worms destroy y.m as in y. manner of poisons 2. dly such as act mediately, that is not in y. manner of poisons, but by rendering their place of abode so disagreeable as to induce y.m to quit it.

Under the 1.st head we rank Bitters, such as Rue, Wormwood, & Worm seed - These are not so effectual as has generally been sup-
-posed, & seldom expel worms unless combined with Mercury or some more powerful Vermifuge. Bitters however may some-
-times be of service without addition. I formerly told you weak-
-ness of the Intestines predispose to worms - Bitters by reto-
-ring the Tone & increasing the peristaltic motion may in some cases expel them. Bitters should always be given after worms have been expelled to prevent their regeneration —
Purgatives may also be employed to expel Worms - These act in a double intention 1.st By giving a stimulus to the In-
-testines they occasion a griping & pain by w.h y. worms may be carried off 2. By taking away the Nourishment from y. worms they weaken y.m so that they cannot keep their hold. It is better to administer Purgatives after some medicines have been given that destroy worms. We should in this case em-
-ploy those of the acrid stimulating kind, such as Jalap Scammony & Calomel - aloes Rhubarb & Senna are not ade-
-quate to y.r purpose - This proves that Bitters have no imme-
diate effect upon Worms — We shall next consider those medicines as have a peculiar effect in destroying Worms.
These are divided into Mineral & Vegetable - And first of the Mineral - The weakest of them are the Saline Sub-
-stances - They are divided into Acids & Alkalis & neutral

Salts – They do not kill worms quickly unless applied in a concentrated state, w^ch is hardly possible – if given by y^e mouth they are so diluted in y^e Stomach that they retain very little of the Saline Stimulus when they arrive at y^e place of y^r torment. I have frequently however relieved Children afflicted with Worms by y^e use of domestic Medicines w^ch is common Salt & Molasses, & have found it often as effectual as any other mode – A Teaspoonful of common Salt mixed with Molasses may be given every morning, more or less according to y^e effect produced. Sulphur, especially joined with Saline substances as in Hepar Sulphuris, will destroy worms. There are several waters w^ch contain Hepar Sulphuris w^ch are effectual in destroying Worms, such as those of Harrow Gate & Yorkshire. Sulphur is an Anthelmentic, even without being mixed with salts, & is used in this intention mixed with Molasses or Milk as a domestic medicine, & you will frequently find it effectual. Gun powder is a common medicine against worms among poor people – Its virtues depend upon the Sulphur & Nitre it contains. Ever since Mercury has been introduced into medicine it has been looked upon as powerful to destroy worms – It may be used in various forms. Some recommend the water in w^ch crude mercury has been boiled but this is a very uncertain way of giving it, & it is supposed of little or no virtues. Kirkops mineral has little effect on the body as a mercurial medicine. The Sulphur entirely destroys the medical virtues of Mercury; probably if it produces any effect it is owing to the Sulphur it contains. The principal preparations of Mercury are Calomel & Corros Sublimate, & these are most effectual in destroying worms. Calomel may either be given by itself or combined with other substances as Purgative medicines. Corros Sublimate in y^e dose of ¼ or ½ gr. is one of the most powerful vermifuges, but it is not to be trifled with

it is improper for children. Calomel may be given in doses from 3 to 4 or 5 gr.s & repeated every 2d. or 3d. day. Tin has been recommended as a vermifuge, but always in powder - it is supposed by every Physician almost that it acts mechanically by its w.t pricking & irritating the worms - But it does not act altogether in this way - Tin is dissolved by the Acid of the Stomach & acts on the worms as a poison - From Margraff's experiments it appears that all tin contains Arsenic & it is probable that from this circumstance it may have some effect in destroying worms. Iron & the various preparations of it have been recommended against worms, & it has this advantage over other remedies that it arrives at the Intestines unchanged - Boerhaave dissolved ℥i of Sal Martis in ℔j of water, & gave the quantity of This medicine at the same time gives proper tone to the Stomach & Intestines. In my own practice, I trust chiefly to the preparations of Iron, & am very seldom disappointed - You may mix the Sal Martis with prepared Steel & you will find it an effectual remedy by continuing it a sufficient length of time. A great variety of Vegetables kill Worms out of the body - all foetid plants, & all such as are accompanied with a Garlic or aliaceous smell destroy Worms & It is said that Garlic applied externally, as to the Soles of the feet, will expel worms - Asa fœtida is frequently mixed with onions. A clove of garlic warmed in Ashes may be swallowed whole, in the morning fasting. Carolina Pink Root, Bear's foot, & Spigilia Anthelmintica are all powerful Vermifuges. Dr. Lining of Charles Town S. Carolina was, I believe, the first that introduced the Carolina Pink Root into practice. I have seen it often tried, & it was generally

vnsuccessful as almost any other remedy. If given in too large a dose it occasions a Vertigo. It may be given either in powder or infusion – it has scarcely any taste & by adding milk & Sugar to it, children may be so deceived as to drink it for tea, the dose in substance is ℈ss xij. Bear's foot is a plant that grows naturally in Maryland Virginia & the other Southern States & is cultivated in gardens about this City – This is perhaps one of the most powerful Vermifuges. Dr Witt of Germantown was the first that used it near this City – & it's effects rendered his powder celebrated – As it is very powerful it should be used in small doses – 2 or 3 gr. is a dose for a child 2 or 3 years old. Spigilia anthel. grows wild in the East Indies – We were first made acquainted with its virtues by Dr Brown in his natural history of Jamaica. He tells us that this medicine has been in use a long time. That among the Negroes & Indians it is called worm grass he says that it is as effectual against worms as bark is against Intermitt.ts. They boil 2 handfuls of fresh Herb in a ℔ of water until one half is consumed – They give one ¼ of the q.t at once to a grown person – it is best to give ½ this quantity at once, & repeat it every 4 or 6 hours If the person that takes it is a child, the dose should be still less & the interval longer as 12 hours – it procures sleep with as much certainty as Opium, & when they awake the eyes appear distended, & sparkling or shining soon after the 1.st dose the pulse becomes regular, the convulsions if there are any are removed, & the worms come away in large quantities, sometimes without any purgative being administred. It is very seldom that more than one dose of the medicine be required. Dr Brown says he has

often succeeded with it when there was cause reason to believe that y^e^ patient could be saved by any other means.

A Decoction of y^e^ unripe shells of our common Walnut are said to prove Vermifuge. I have had no opportunity of trying them, but I have reason to believe they will have this effect as they kill worms out of the body. Cow-itch grows in pods in y^e^ form of small cetaceous joints - its operation on the worms is mechanical, by its sharp points it irritates the worms, & thus renders their habitation uncomfortable to y^m^ - It is commonly administered in Substance in Syrup or Molasses. Pine hair cut fine acts upon the same principle, & may be administred with equal success. - The bark of the Cabbage Tree in the West Indies is looked upon to be a very powerful Vermifuge - it is as powerful as most others. Oil of olives or expressed oils have been recommended to kill worms. They have been tho't to act by stopping up the foramina thro' w^ch^ it was supposed the worms perspired - but there is a wide difference between worms & Insects, & hitherto no such foramina have been discovered in worms, & it is not probable that they have such as they will live in water & not in air it is impossible therefore that oil can act in this way -

We shall now treat of the method of cure that y^e^ particular species require. The Ascarides as I have already said infest only the rectum — Saline & all sweet substances kill worms directly - Glysters therefore of Milk Salt & Sugar will often destroy Ascarides without any other medicine. The common people make a suppository of pork & introduce it into y^e^ rectum to draw out these kind of worms - This must be often repeated before y^e^ patient is relieved Gentle Laxatives will also destroy them

Nothing is more effectual than Glysters of Quicksilver hot as it is called with Hogs lard.

The Lumbrici or round worms are not so easily expelled as the former - the medicine for expelling these worms should be given about breakfast time, if it is given in milk the worms will be more greedy for it - The patient should not prepare the portion himself - this is ye opinion of some Physicians but I am not sure it is well founded - it is better however to attend to it - If ye patient soon after taking the medicine is sensible of great pain - it is probable that ye worms are endeavouring to penetrate thro' ye Intestines into ye abdomen & the best application is to rub the belly with petroleum - It is necessary that the patient should abstain from a milk diet & live upon salt meat for some time before taking these medicines, he may also take a piece of salt herring at night going to bed without taking any thing after it as they do not like this sort of food, the worms may be dislodged with more ease than if this method is not pursued - When there is reason to believe that all the worms have been expelled Bitters may be given as Tonics to prevent their regeneration - The Juice of Rhubarb is better than any other remedy - When worms are attended with fever we must use such remedies as will destroy the worms & will at the same time remove the fever such as Camphor & Vinegar - we may take Camphor ℥i reduced into fine powder be means of Spirit of wine, Sugar ℥ij & good wine Vinegar ℥viij, & give 1 or 2 Table spoonfulls every 2 or 3 hours. The Tania or Tapeworm is expelled with

more difficulty than any other as it is of great length & has y. power of fastening itself on the Intestines by means of its winding Tubes & will sometimes elude the powers of Medicine - D.r Rosen a celebrated Physician in Sweeden ordered his patients afflicted with this worm to live for some weeks on salt meat before he administred any medicine to expel it - he then prescribed some one of the medicines w.ch I have mentioned, & when he thought the worm was got low down in the abdomen he administred a smart purge of Jalap & Colomel & ordered his patient to drink plentifully of cold water - You are to observe that cold water will deprive this worm of all sense & motion - I have known this method succeed several times, & I have seen a Tape worm between 30 & 40 feet long brot. away in this manner. Dr. Hasselquist in his Travels to the East tells us that the Inhabitants of Grand Cairo are very much afflicted with the Tape worm, & that to expel them they take Petroleum. If the worm does not come away by the first dose they repeat it again, & are seldom disappointed in their hopes of a cure. In my own practice, in every species of worm, except the Ascarides, I seldom use any other medicine than the Chalybiate preparations with Sal Martis, & I use the Chalybs in much larger dose than it is commonly employed. I frequently exhibit it to grown people in the dose of ℈ss or ℈i twice a day - ℊr.s iv or v of Sal Martis may be combined with each dose.

# Of The Cold Bath.

The human body being subject to various diseases from the sudden viscisitudes of heat & cold with many other causes, all means for the cure or mitigation of them deserves our serious consideration as health is the greatest blessing & gives a relish to all our Enjoyments, while on the other hand disease is nothing but misery & pain even in the midst of all the other Enjoyments of Life.

The Supreme being has wisely ordained many things for the use of man not only for his nourishment & support, but also for the curing or alleviating of diseases; among the latter the simplest are oftentimes the most efficacious, thus cold water the very simple & common is yet endowed with many medicinal qualities. I shall here only speak of its effects in bathing, having already mentioned its effects when taken internally elsewhere.

Cold Bathing is very Ancient, being used in Egypt & the eastern countries in very early ages, but Pythagoras first brought it into Greece where it was afterwards used upon almost all occasions.

In order to the better understanding the nature of cold bathing I shall first take notice of the effects of heat & cold upon the human body. Cold condences the fluids, causes a stronger cohesion & greater oscillation of the solid with a greater momentum of the fluids, from whence ensues a greater attrition & heat. On the contrary heat rarefies & evaporates the fluids, causes a too great relaxation & debility of the solids, hence a remiss circulation, obstructions & viscidity of the humors, & a languor both of body & mind: Cold externally applied constricts the

cutaneous capillary vessels & drives the blood to the internal parts & brain. This being permised its easy to account for the good effects of this valueable Catholicon. Cold Bathing constricts & causes a concussion of the Nerves, strenghens the Glands & Muscles, cures feverish dispositions, helps digestion, invigorates both the body & mind, & strengthens the imagination, hence it must be beneficial in a laxitor & weakness of the blood after intermittent remittent or Continued Fevers, in Cutaneous diseases, in Spasms, Ulcers, Heamorrhages, of the Nose & Uterus, Simple Gonorrheas, Priapisms, Destructions of the Lungs, & palate, The Fluor Albus, Catarrhs, nocturnal Pollutions, vague Rheumatic, Scorbutic & nervous pains, in nervous diseases as the Epilepsy; Tetanus, Numbness, Mania, Hydrophobia, Hysterics & Drunkenness, lastly in Obstructions of the Viscera, in Nausea, Faintings, Gripes &c.

But the Cold Bath is improper in an inflamation of the blood or any of the Viscera, in a plethora, Phrenzy, in the begining of putrid Fevers &c.

The common manner of using the cold bath is by immersing or pumping.

It is a good practice to Shave the head & wash it in cold water often as it Strengthens the animal faculties, encourages perspiration & prevents & cures the Headach, toothach, earach, &c. Cold water is serviceable in opthalmias after bleeding, also in asthmatic, rheumatic & gouty cases.

The Rheumatism is an old English disease & is best

cured by bleeding purging, then the use of the cold Bath &
after that a sweat, the swelling being abated Corroberants
& Stal &c: should be administred. The Gout seems to be owing
to Sharp humors in the blood wch nature endeavours to expell, the
strongest effort of wch throws it upon the ankles, or wrists,
next upon the knees & elbows, & the last & weakest upon the
Stomach, in this disease the cold wates used with Judge-
ment out of the fit is serviceable as it helps to expell
the morbific matter braces up the relaxed injured parts &
prevents cretaceous concretions in the Joints. Cold Wa-
=ater Stops an hemorrhage from a divided Artery if
Small as likewise does the cold air this has saved
the life of many a brave Soldier in the field who would
otherwise have bled to death for want of timely assis-
=tance. Cold water applied with a napkin to the nape
of the neck or Snuffed up the nose will Stop a blee-
=ding at the nose. Cold bathing Stimulates to
Stool & urine as appears from the Edenburgh medical
Essays. The Fluor Albus & Simple Gonorrhea are nea-
=rly the Same as they require Similar treatment, they are
cured by the use of the cold bath & of terebinthina te pills
Gum Olibanum & the Bark. Sterility is likewise cured by
the use of the Cold bath, thus Pharoahs Daughter bathed in the
river Nile to procure fœcundity. Helmont says a Maniac
person was cured by leaping into cold water & Drunkenness
is soonest relieved by cold Bathing of any thing way. of late

the bathing of young Children in cold water is much pra
=ctised in Europe &c: practice they learnt of the Indians
with very happy consequenses as it Strengthtens their lim=
=bs braces their nerves & makes them strong lively & hear=
=ty prevents their catching cold, makes them straight
limed, agile, & renders them less obnoxious to the many
diseases to wch their tender age subjects them, besides it cures
them of Convulsions, Rickets Fevers &c: Cold bathing
is likewise serviceable in Errores loci, in a blood Shot
Eye &c: but in order to render its use successful the
following Rules & Cautions are necessary 1st Never
bath immediately after eating, Drinking, or sweating. 2.
In a plethora Evacuations by bleeding & purging should
precede the use of it. 3d Never bath while hot or in a sweat
4th always bath before Dinner, but the best time for
doing it is in the morning. 5th Dont go into it above
10 times a week. 6th Walk about or go into bed after
you come out of the bath. 7th Wet the head first before
going in. 8. Dont Stay in above 15 or 20 minutes at a time.
9th using it once in 2 or 3 days is enough & according to Sir
John Floyer its use may be continued from June to Sept=
=ember. 10th The patient should always be under the care
of the Physician during the time of his using it.
The Antients used to anoint themselves with oil after bathing.

In this book we have the

In this book we have the notes taken down from lectures given in the first year of the Medical School's existence, 1765-66. That year the Faculty consisted of but John Morgan and William Shippen, Jr. These notes were undoubtedly written by Jonathan Elmer who received his B.M. degree in 1768.

Dr. Walter Elmer compared these notes with examples of Jonathan Elmer's handwriting and found them similar. The book came from the library of Paul Elmer More, a great grandson of Jonathan Elmer.

The lectures on Materia Medica were undoubtedly given by John Morgan, who had announced that on Materia Medica and the Practice of Physick would begin on November 18, 1765. As the first lecture is dated February 14, 1766, it would appear that Morgan did not start this first course ~~with lectures on Practice and then later in the school year, began lecturing on Materia Medica.~~ until Feb. 14-1766

The notation inside the front cover, "Anthelmintics Dr. Kuhn 293" suggests that Elmer attended some of Dr. Adam Kuhn's lectures. Kuhn, on his return from Europe, was elected Professor of Botany and Materia Medica on January 26, 1768. He lectured that spring. Elmer received his degree at the Commencement held on June 21, 1768.

On Page 293 begins the notes presumably on Kuhn's lecture about Anthelmintics delivered probably in the spring of 1768. The first two sheets in the book contain notes of a lecture probably by Kuhn, beginning "A Medicus sivi Physician should be modest, sober and humane, and should be well acquainted with the nature and changes of ye human body, Pharmacy, etc." This is on Page III and is continued on Page IV and then on Page II, Page I is blank. Elmer did not number these first four pages, but on the fifth page of the book which he numbers "1" begins the notes on Morgan's lectures. The last four sheets in the book contain notes of a lecture on the Cold Bath, probably also by Kuhn.

William Pepper
1938

1644

probably
mpletely
(Phila.,
$50.00
e family's
been the
t as per-
nly excep-
93." This
Dr. Adam
o be used
e national
ortance to